

# Exhibit P

**PATENT ASSIGNMENT COVER SHEET**Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5349392

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
EMPIRE TECHNOLOGY DEVELOPMENT LLC		12/28/2018
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	CRESTLINE DIRECT FINANCE, L.P.	
<b>Street Address:</b>	201 MAIN STREET, SUITE 1900	
<b>City:</b>	FORT WORTH	
<b>State/Country:</b>	TEXAS	
<b>Postal Code:</b>	76102	
<b>PROPERTY NUMBERS Total: 2822</b>		
<b>Property Type</b>	<b>Number</b>	
Application Number:	09652011	
Application Number:	12886370	
Application Number:	12886403	
Application Number:	13695276	
Application Number:	13376544	
Application Number:	13321784	
Application Number:	13256215	
Application Number:	13511134	
Application Number:	15681281	
Application Number:	13982251	
Application Number:	13696689	
Application Number:	13699193	
Application Number:	13698776	
Application Number:	14626591	
Application Number:	13814866	
Application Number:	13976440	
Application Number:	13814844	
Application Number:	13988010	
Application Number:	14375115	
Application Number:	13993908	

505302614

**PATENT**  
**REEL: 048373 FRAME: 0217**

COBB\_029075

Property Type	Number
Application Number:	13811548
Application Number:	13879289
Application Number:	14548223
Application Number:	14440923
Application Number:	14362907
Application Number:	13879800
Application Number:	13825052
Application Number:	13816574
Application Number:	14009763
Application Number:	14768217
Application Number:	14768218
Application Number:	15584363
Application Number:	15584518
Application Number:	14648460
Application Number:	14770580
Application Number:	13825858
Application Number:	14785566
Application Number:	14760740
Application Number:	14651841
Application Number:	13876016
Application Number:	14898420
Application Number:	15031710
Application Number:	14778977
Application Number:	14894616
Application Number:	14889713
Application Number:	13978109
Application Number:	15101394
Application Number:	14125929
Application Number:	14894814
Application Number:	14767188
Application Number:	15036308
Application Number:	14905729
Application Number:	14001764
Application Number:	14889780
Application Number:	14901696
Application Number:	14891752
Application Number:	14130956
Application Number:	14114738

Property Type	Number
Application Number:	14888564
Application Number:	14488910
Application Number:	14894660
Application Number:	15377666
Application Number:	15031188
Application Number:	15032040
Application Number:	14426161
Application Number:	14394408
Application Number:	15026070
Application Number:	15031713
Application Number:	15101396
Application Number:	15035371
Application Number:	14358708
Application Number:	14967395
Application Number:	15037329
Application Number:	15127086
Application Number:	14485518
Application Number:	14424414
Application Number:	14372294
Application Number:	14448938
Application Number:	14579994
Application Number:	14778601
Application Number:	14340511
Application Number:	14610304
Application Number:	15100989
Application Number:	14466684
Application Number:	15112151
Application Number:	15101009
Application Number:	14399115
Application Number:	15462263
Application Number:	14458202
Application Number:	14278505
Application Number:	14449074
Application Number:	15306471
Application Number:	14449571
Application Number:	14448267
Application Number:	13696062
Application Number:	13505723



Property Type	Number
Application Number:	13805761
Application Number:	13805775
Application Number:	13636778
Application Number:	13825516
Application Number:	13637350
Application Number:	13997886
Application Number:	13814851
Application Number:	14681037
Application Number:	15024040
Application Number:	15122094
Application Number:	14579239
Application Number:	15101935
Application Number:	14447216
Application Number:	14430203
Application Number:	14300846
Application Number:	14298726
Application Number:	14498312
Application Number:	15790864
Application Number:	14515214
Application Number:	15643993
Application Number:	14538615
Application Number:	15687695
Application Number:	15461715
Application Number:	14717498
Application Number:	16194254
Application Number:	12535542
Application Number:	12535530
Application Number:	13380819
Application Number:	12707510
Application Number:	12707523
Application Number:	12770120
Application Number:	12554702
Application Number:	12727935
Application Number:	13878238
Application Number:	12835277
Application Number:	12707496
Application Number:	13132080
Application Number:	12844839

**PATENT**  
**REEL: 048373 FRAME: 0220**

COBB\_029078

Property Type	Number
Application Number:	12539338
Application Number:	13202988
Application Number:	13148724
Application Number:	14985782
Application Number:	13119896
Application Number:	13123440
Application Number:	13129796
Application Number:	14532475
Application Number:	12543492
Application Number:	12553091
Application Number:	12943219
Application Number:	12761415
Application Number:	12538884
Application Number:	12538881
Application Number:	13263841
Application Number:	13141327
Application Number:	12849828
Application Number:	13203969
Application Number:	13319148
Application Number:	12709060
Application Number:	13129879
Application Number:	13202226
Application Number:	13125925
Application Number:	13260753
Application Number:	13203837
Application Number:	14487112
Application Number:	13255237
Application Number:	13376804
Application Number:	13254970
Application Number:	14039854
Application Number:	13496773
Application Number:	13203977
Application Number:	14368216
Application Number:	13807148
Application Number:	13634199
Application Number:	13641701
Application Number:	14864920
Application Number:	13265778

**PATENT**  
**REEL: 048373 FRAME: 0221**

COBB\_029079

Property Type	Number
Application Number:	14006291
Application Number:	13701833
Application Number:	13576929
Application Number:	14160199
Application Number:	13574158
Application Number:	13522422
Application Number:	13318391
Application Number:	13814940
Application Number:	13497255
Application Number:	14425326
Application Number:	14428186
Application Number:	14410902
Application Number:	13322285
Application Number:	13514284
Application Number:	14352613
Application Number:	13254808
Application Number:	13814938
Application Number:	13818305
Application Number:	13576916
Application Number:	14028384
Application Number:	14441396
Application Number:	14355826
Application Number:	14241004
Application Number:	13878947
Application Number:	13579927
Application Number:	13510925
Application Number:	13508985
Application Number:	13391573
Application Number:	14338631
Application Number:	14117097
Application Number:	13643874
Application Number:	14146354
Application Number:	14007324
Application Number:	13637322
Application Number:	13817113
Application Number:	13499746
Application Number:	13817694
Application Number:	14957775

Property Type	Number
Application Number:	13977918
Application Number:	15140752
Application Number:	14430917
Application Number:	13810815
Application Number:	15051857
Application Number:	14357854
Application Number:	14349001
Application Number:	14124094
Application Number:	13817357
Application Number:	14408928
Application Number:	14000377
Application Number:	14239642
Application Number:	14130017
Application Number:	14114154
Application Number:	15449815
Application Number:	13819715
Application Number:	14004371
Application Number:	14007547
Application Number:	14114087
Application Number:	13876558
Application Number:	14004850
Application Number:	13990429
Application Number:	14408563
Application Number:	14239635
Application Number:	13879799
Application Number:	14390624
Application Number:	14907401
Application Number:	14126382
Application Number:	13989656
Application Number:	14006309
Application Number:	15060993
Application Number:	16039468
Application Number:	14403710
Application Number:	14127192
Application Number:	15924535
Application Number:	14357867
Application Number:	14763919
Application Number:	14441468

Property Type	Number
Application Number:	13985761
Application Number:	14122971
Application Number:	15056055
Application Number:	14765395
Application Number:	14647603
Application Number:	14358770
Application Number:	13855590
Application Number:	14652203
Application Number:	14422287
Application Number:	15657465
Application Number:	14421309
Application Number:	14006310
Application Number:	14363075
Application Number:	14358990
Application Number:	14365324
Application Number:	14410056
Application Number:	14412412
Application Number:	14647655
Application Number:	14408753
Application Number:	14361705
Application Number:	15110953
Application Number:	14438522
Application Number:	14386644
Application Number:	14372958
Application Number:	16155530
Application Number:	14781134
Application Number:	14655407
Application Number:	14408560
Application Number:	14894897
Application Number:	14368449
Application Number:	14894858
Application Number:	14374144
Application Number:	14409526
Application Number:	14409464
Application Number:	15367031
Application Number:	15109568
Application Number:	15312203
Application Number:	14382659

Property Type	Number
Application Number:	14408768
Application Number:	14431490
Application Number:	14438521
Application Number:	15459292
Application Number:	14409530
Application Number:	15299840
Application Number:	15128427
Application Number:	15507389
Application Number:	14434227
Application Number:	14443902
Application Number:	14390629
Application Number:	15296206
Application Number:	14648001
Application Number:	14387081
Application Number:	15429881
Application Number:	14376532
Application Number:	14787135
Application Number:	14440239
Application Number:	15589019
Application Number:	15031394
Application Number:	15318650
Application Number:	14428244
Application Number:	15203407
Application Number:	15483418
Application Number:	15504047
Application Number:	14785882
Application Number:	15317904
Application Number:	15122001
Application Number:	15125917
Application Number:	15119044
Application Number:	14432123
Application Number:	15518122
Application Number:	15510260
Application Number:	14647701
Application Number:	15786165
Application Number:	14435388
Application Number:	14439898
Application Number:	15092229

**PATENT**  
**REEL: 048373 FRAME: 0225**

COBB\_029083

Property Type	Number
Application Number:	14439987
Application Number:	15540055
Application Number:	14442187
Application Number:	14767165
Application Number:	15500928
Application Number:	14768960
Application Number:	15540317
Application Number:	15564794
Application Number:	14777668
Application Number:	14905837
Application Number:	13817926
Application Number:	13701131
Application Number:	13825272
Application Number:	13809482
Application Number:	13878707
Application Number:	13877578
Application Number:	13882491
Application Number:	15049537
Application Number:	13813209
Application Number:	14441622
Application Number:	14130128
Application Number:	14007560
Application Number:	15864068
Application Number:	13983654
Application Number:	13976661
Application Number:	13995794
Application Number:	14408135
Application Number:	15200648
Application Number:	14352266
Application Number:	14342377
Application Number:	15626231
Application Number:	13978850
Application Number:	15098740
Application Number:	14008377
Application Number:	14232172
Application Number:	13981544
Application Number:	14333943
Application Number:	14371706

Property Type	Number
Application Number:	14370399
Application Number:	15973455
Application Number:	15477784
Application Number:	14358056
Application Number:	14118649
Application Number:	15843174
Application Number:	14372104
Application Number:	14234309
Application Number:	15112165
Application Number:	14343653
Application Number:	14382662
Application Number:	15092773
Application Number:	15705726
Application Number:	15953229
Application Number:	15114411
Application Number:	15117165
Application Number:	15115273
Application Number:	14378184
Application Number:	14384887
Application Number:	15117169
Application Number:	14916546
Application Number:	15726570
Application Number:	15804283
Application Number:	14278802
Application Number:	15117375
Application Number:	15707436
Application Number:	15991734
Application Number:	14384825
Application Number:	14384870
Application Number:	14425591
Application Number:	14454121
Application Number:	14440236
Application Number:	15684369
Application Number:	14301554
Application Number:	14955199
Application Number:	15277678
Application Number:	15864657
Application Number:	14296380

**PATENT**  
**REEL: 048373 FRAME: 0227**

COBB\_029085



Property Type	Number
Application Number:	15934891
Application Number:	14384917
Application Number:	14305691
Application Number:	14456107
Application Number:	14518144
Application Number:	14492938
Application Number:	14491937
Application Number:	15622385
Application Number:	14480041
Application Number:	14617165
Application Number:	14434062
Application Number:	14787849
Application Number:	14761389
Application Number:	12541171
Application Number:	12551175
Application Number:	14325501
Application Number:	14992147
Application Number:	12506259
Application Number:	12551164
Application Number:	12504684
Application Number:	12195786
Application Number:	12257140
Application Number:	14100296
Application Number:	12550197
Application Number:	12554949
Application Number:	12550473
Application Number:	12551065
Application Number:	12648081
Application Number:	13709670
Application Number:	12550697
Application Number:	12638154
Application Number:	14577932
Application Number:	13254153
Application Number:	12750304
Application Number:	13619620
Application Number:	13102896
Application Number:	13130842
Application Number:	13390580

Property Type	Number
Application Number:	13395839
Application Number:	13263998
Application Number:	13202269
Application Number:	14129035
Application Number:	14590758
Application Number:	13147926
Application Number:	14946216
Application Number:	13582831
Application Number:	15463203
Application Number:	13498556
Application Number:	13859665
Application Number:	13949125
Application Number:	13497494
Application Number:	14988413
Application Number:	13378993
Application Number:	13643957
Application Number:	13700393
Application Number:	14717644
Application Number:	15008143
Application Number:	14397302
Application Number:	14399277
Application Number:	13576339
Application Number:	15050856
Application Number:	13641126
Application Number:	13582741
Application Number:	14440842
Application Number:	14661888
Application Number:	13635632
Application Number:	14128477
Application Number:	13978949
Application Number:	15933424
Application Number:	14350746
Application Number:	14409978
Application Number:	14769819
Application Number:	13822201
Application Number:	14974240
Application Number:	14782787
Application Number:	14402090

Property Type	Number
Application Number:	14383895
Application Number:	14369913
Application Number:	14648692
Application Number:	14123199
Application Number:	14833082
Application Number:	14715114
Application Number:	14407761
Application Number:	14371322
Application Number:	14782240
Application Number:	14780996
Application Number:	14354112
Application Number:	14354116
Application Number:	15345901
Application Number:	14481439
Application Number:	14520358
Application Number:	14905815
Application Number:	14522577
Application Number:	15611886
Application Number:	14830547
Application Number:	15355616
Application Number:	14549895
Application Number:	14640465
Application Number:	14809793
Application Number:	14924341
Application Number:	14524690
Application Number:	14716443
Application Number:	14933049
Application Number:	14824754
Application Number:	14706926
Application Number:	14660370
Application Number:	14694250
Application Number:	15326481
Application Number:	15326482
Application Number:	15290161
Application Number:	12666954
Application Number:	14092301
Application Number:	12593574
Application Number:	13793745

Property Type	Number
Application Number:	12530553
Application Number:	14054673
Application Number:	12597743
Application Number:	12665613
Application Number:	13314894
Application Number:	12665710
Application Number:	12544839
Application Number:	12663060
Application Number:	14194312
Application Number:	12663078
Application Number:	12663082
Application Number:	12601748
Application Number:	13767094
Application Number:	12601968
Application Number:	12664723
Application Number:	12161760
Application Number:	12598288
Application Number:	11783892
Application Number:	12600002
Application Number:	12664242
Application Number:	12665027
Application Number:	14088737
Application Number:	12665298
Application Number:	12666971
Application Number:	12640986
Application Number:	12642110
Application Number:	12564695
Application Number:	12641079
Application Number:	12639836
Application Number:	12665015
Application Number:	13252428
Application Number:	12642279
Application Number:	13193137
Application Number:	12642392
Application Number:	12665020
Application Number:	12665434
Application Number:	12665320
Application Number:	12540766

Property Type	Number
Application Number:	12614014
Application Number:	13369136
Application Number:	12665107
Application Number:	12640967
Application Number:	12568188
Application Number:	12665153
Application Number:	12665295
Application Number:	12642407
Application Number:	12645113
Application Number:	12628850
Application Number:	12631623
Application Number:	12550629
Application Number:	12624972
Application Number:	12641662
Application Number:	12641115
Application Number:	14335583
Application Number:	12645085
Application Number:	12645309
Application Number:	13682669
Application Number:	12559228
Application Number:	12647711
Application Number:	12641991
Application Number:	12708054
Application Number:	12645385
Application Number:	12691462
Application Number:	13201607
Application Number:	13683894
Application Number:	12960259
Application Number:	12762474
Application Number:	13775882
Application Number:	12969011
Application Number:	13000456
Application Number:	12855908
Application Number:	12645495
Application Number:	12645176
Application Number:	12644660
Application Number:	13834941
Application Number:	12778352

Property Type	Number
Application Number:	12999469
Application Number:	12643434
Application Number:	12645496
Application Number:	13201124
Application Number:	13000796
Application Number:	12993641
Application Number:	13058944
Application Number:	13131152
Application Number:	12644754
Application Number:	13392966
Application Number:	13791692
Application Number:	14690396
Application Number:	12770008
Application Number:	13439209
Application Number:	13139709
Application Number:	13139819
Application Number:	14152271
Application Number:	12968952
Application Number:	13362062
Application Number:	12895494
Application Number:	12993465
Application Number:	12895544
Application Number:	13062496
Application Number:	12968984
Application Number:	12993094
Application Number:	13122957
Application Number:	13000421
Application Number:	14083279
Application Number:	13124558
Application Number:	13062516
Application Number:	13000127
Application Number:	12999628
Application Number:	13122877
Application Number:	13122961
Application Number:	13260154
Application Number:	14460227
Application Number:	13264977
Application Number:	13143715

**PATENT**  
**REEL: 048373 FRAME: 0233**

COBB\_029091

Property Type	Number
Application Number:	13552325
Application Number:	13148174
Application Number:	13262898
Application Number:	14310034
Application Number:	13133614
Application Number:	13577729
Application Number:	13127301
Application Number:	13119731
Application Number:	13445254
Application Number:	13144544
Application Number:	13122912
Application Number:	14660769
Application Number:	10084480
Application Number:	10639471
Application Number:	10680157
Application Number:	13143173
Application Number:	14562533
Application Number:	13320733
Application Number:	13519296
Application Number:	13421947
Application Number:	13379211
Application Number:	13203966
Application Number:	13395540
Application Number:	13704329
Application Number:	13143096
Application Number:	13142372
Application Number:	13143093
Application Number:	13126155
Application Number:	13992737
Application Number:	14002981
Application Number:	13132890
Application Number:	13256670
Application Number:	13823193
Application Number:	13395119
Application Number:	14517094
Application Number:	14000198
Application Number:	13254635
Application Number:	13879457

**PATENT**  
**REEL: 048373 FRAME: 0234**

COBB\_029092

Property Type	Number
Application Number:	13264981
Application Number:	13148919
Application Number:	13860432
Application Number:	13522299
Application Number:	13641095
Application Number:	13388663
Application Number:	13503690
Application Number:	13878733
Application Number:	13514036
Application Number:	13518840
Application Number:	14054195
Application Number:	14293448
Application Number:	14565894
Application Number:	13641843
Application Number:	13522932
Application Number:	14510027
Application Number:	14110442
Application Number:	13504473
Application Number:	13981495
Application Number:	13517974
Application Number:	13266579
Application Number:	14540192
Application Number:	15170131
Application Number:	13640781
Application Number:	15011721
Application Number:	13642689
Application Number:	13497636
Application Number:	14517262
Application Number:	15830280
Application Number:	13640888
Application Number:	13519308
Application Number:	15093702
Application Number:	13582009
Application Number:	13809539
Application Number:	13577508
Application Number:	13426868
Application Number:	13582710
Application Number:	13880034



Property Type	Number
Application Number:	13881144
Application Number:	13703657
Application Number:	14728740
Application Number:	13514012
Application Number:	13642115
Application Number:	13575367
Application Number:	13702934
Application Number:	14805364
Application Number:	13519303
Application Number:	13879244
Application Number:	13641242
Application Number:	13641288
Application Number:	13583779
Application Number:	14009098
Application Number:	13989792
Application Number:	13881731
Application Number:	14541161
Application Number:	13576383
Application Number:	13988304
Application Number:	13533774
Application Number:	13824276
Application Number:	13977318
Application Number:	13990427
Application Number:	13817803
Application Number:	14435205
Application Number:	13819793
Application Number:	13697294
Application Number:	13979994
Application Number:	13980027
Application Number:	13817775
Application Number:	13813333
Application Number:	14706393
Application Number:	13820714
Application Number:	15137301
Application Number:	13641565
Application Number:	13885394
Application Number:	14781551
Application Number:	13991405

Property Type	Number
Application Number:	14908899
Application Number:	13878512
Application Number:	15014072
Application Number:	13809012
Application Number:	13814654
Application Number:	15290110
Application Number:	14787476
Application Number:	13808418
Application Number:	13994094
Application Number:	13980577
Application Number:	14889556
Application Number:	14766365
Application Number:	15115012
Application Number:	13992218
Application Number:	14769285
Application Number:	14909033
Application Number:	14650555
Application Number:	15309179
Application Number:	13992745
Application Number:	14786473
Application Number:	14004653
Application Number:	13995312
Application Number:	14349656
Application Number:	14771873
Application Number:	14906530
Application Number:	14784535
Application Number:	14118315
Application Number:	15973452
Application Number:	13922780
Application Number:	15449019
Application Number:	15036369
Application Number:	14646031
Application Number:	15026611
Application Number:	14346855
Application Number:	15030880
Application Number:	14917278
Application Number:	14002595
Application Number:	14922671

**PATENT**  
**REEL: 048373 FRAME: 0237**

COBB\_029095

Property Type	Number
Application Number:	14357476
Application Number:	14115030
Application Number:	15106291
Application Number:	14359478
Application Number:	15115622
Application Number:	14897216
Application Number:	15121788
Application Number:	14916573
Application Number:	14398014
Application Number:	15035758
Application Number:	14384979
Application Number:	15122315
Application Number:	15127009
Application Number:	15037789
Application Number:	14443909
Application Number:	15122934
Application Number:	15012585
Application Number:	14890022
Application Number:	14732424
Application Number:	14394475
Application Number:	14769656
Application Number:	14784111
Application Number:	14784427
Application Number:	16108976
Application Number:	15303841
Application Number:	14895637
Application Number:	15121012
Application Number:	14327814
Application Number:	14284579
Application Number:	14895060
Application Number:	14316916
Application Number:	14547703
Application Number:	14444365
Application Number:	14456511
Application Number:	14631872
Application Number:	14808172
Application Number:	14990028
Application Number:	12303686

Property Type	Number
Application Number:	12123121
Application Number:	12198825
Application Number:	12395441
Application Number:	12366800
Application Number:	12545728
Application Number:	12766349
Application Number:	12999130
Application Number:	14483928
Application Number:	13121322
Application Number:	13143521
Application Number:	13119413
Application Number:	13809884
Application Number:	13121791
Application Number:	14297584
Application Number:	13123450
Application Number:	13863313
Application Number:	13132224
Application Number:	13142054
Application Number:	13511844
Application Number:	14982184
Application Number:	13805286
Application Number:	13503813
Application Number:	13700078
Application Number:	14701460
Application Number:	13505650
Application Number:	13695356
Application Number:	14611952
Application Number:	13503827
Application Number:	13805464
Application Number:	14175232
Application Number:	13577411
Application Number:	15387874
Application Number:	13580225
Application Number:	13636794
Application Number:	13989720
Application Number:	13977262
Application Number:	13809384
Application Number:	14304788

Property Type	Number
Application Number:	13978553
Application Number:	14455043
Application Number:	15067890
Application Number:	13576265
Application Number:	14708724
Application Number:	13636801
Application Number:	14305547
Application Number:	14884195
Application Number:	13642816
Application Number:	14972511
Application Number:	13697243
Application Number:	13575815
Application Number:	13635273
Application Number:	15657869
Application Number:	14235406
Application Number:	13700104
Application Number:	13701349
Application Number:	13534613
Application Number:	13996323
Application Number:	13995840
Application Number:	13996724
Application Number:	13805785
Application Number:	15238178
Application Number:	13701359
Application Number:	13701324
Application Number:	15084879
Application Number:	13701370
Application Number:	13810497
Application Number:	14951685
Application Number:	13825096
Application Number:	13996331
Application Number:	13878153
Application Number:	14926417
Application Number:	13878357
Application Number:	13885754
Application Number:	14693400
Application Number:	15941476
Application Number:	15026606

Property Type	Number
Application Number:	15110466
Application Number:	13882493
Application Number:	13996290
Application Number:	14908340
Application Number:	14376330
Application Number:	15466178
Application Number:	14118090
Application Number:	14124389
Application Number:	14343968
Application Number:	14007635
Application Number:	15297434
Application Number:	14375902
Application Number:	14372925
Application Number:	15294868
Application Number:	15117730
Application Number:	14118707
Application Number:	14130018
Application Number:	14377388
Application Number:	14372340
Application Number:	14377410
Application Number:	14128692
Application Number:	14385015
Application Number:	14377612
Application Number:	14384962
Application Number:	14377393
Application Number:	15822499
Application Number:	14758595
Application Number:	15601135
Application Number:	14785650
Application Number:	15947243
Application Number:	15128957
Application Number:	14388551
Application Number:	15308611
Application Number:	15984367
Application Number:	14785647
Application Number:	15612057
Application Number:	14888850
Application Number:	16035364

**PATENT**  
**REEL: 048373 FRAME: 0241**

COBB\_029099

Property Type	Number
Application Number:	14298973
Application Number:	14888861
Application Number:	15941130
Application Number:	14784595
Application Number:	14295936
Application Number:	15843067
Application Number:	14334906
Application Number:	14302434
Application Number:	14404002
Application Number:	14487114
Application Number:	14430757
Application Number:	15545448
Application Number:	14574068
Application Number:	14980692
Application Number:	15157557
Application Number:	14110919
Application Number:	13445805
Application Number:	13583540
Application Number:	14117618
Application Number:	13509351
Application Number:	14975690
Application Number:	14891810
Application Number:	13003222
Application Number:	12710508
Application Number:	12714482
Application Number:	12647256
Application Number:	13003235
Application Number:	15489111
Application Number:	12992120
Application Number:	14606672
Application Number:	13140328
Application Number:	12971140
Application Number:	12867177
Application Number:	13063428
Application Number:	13123612
Application Number:	13062936
Application Number:	13394812
Application Number:	13392800

Property Type	Number
Application Number:	13054867
Application Number:	13575549
Application Number:	13264675
Application Number:	14321300
Application Number:	14830268
Application Number:	15837304
Application Number:	13389586
Application Number:	13643273
Application Number:	15382816
Application Number:	13579248
Application Number:	14154850
Application Number:	14492814
Application Number:	13700836
Application Number:	13994438
Application Number:	13939915
Application Number:	14001174
Application Number:	14124007
Application Number:	14000527
Application Number:	14353494
Application Number:	14435747
Application Number:	12200271
Application Number:	12200438
Application Number:	12200043
Application Number:	12202282
Application Number:	12201298
Application Number:	12201329
Application Number:	12400631
Application Number:	14457298
Application Number:	15935849
Application Number:	12478614
Application Number:	14063003
Application Number:	12201403
Application Number:	12201381
Application Number:	12201415
Application Number:	14055447
Application Number:	12200096
Application Number:	12200077
Application Number:	12479280



Property Type	Number
Application Number:	15138383
Application Number:	12390957
Application Number:	12396939
Application Number:	14159196
Application Number:	12487669
Application Number:	12463460
Application Number:	12538879
Application Number:	12487670
Application Number:	12539608
Application Number:	11934564
Application Number:	12389236
Application Number:	13371782
Application Number:	12467943
Application Number:	14256575
Application Number:	12435213
Application Number:	13293932
Application Number:	12503619
Application Number:	13857874
Application Number:	12422172
Application Number:	12467753
Application Number:	12417478
Application Number:	12512823
Application Number:	12511457
Application Number:	12401380
Application Number:	12507550
Application Number:	13246636
Application Number:	12546499
Application Number:	12507683
Application Number:	12511214
Application Number:	12506148
Application Number:	13657630
Application Number:	13657659
Application Number:	12488200
Application Number:	13493841
Application Number:	12492015
Application Number:	12509087
Application Number:	12367287
Application Number:	14563709

**PATENT**  
**REEL: 048373 FRAME: 0244**

COBB\_029102

Property Type	Number
Application Number:	15829200
Application Number:	12467919
Application Number:	12497242
Application Number:	12542096
Application Number:	12463969
Application Number:	12367237
Application Number:	12431912
Application Number:	12490702
Application Number:	12396777
Application Number:	13311375
Application Number:	12396787
Application Number:	13564837
Application Number:	12358253
Application Number:	13655471
Application Number:	14530845
Application Number:	14975796
Application Number:	15612216
Application Number:	12416156
Application Number:	12429580
Application Number:	12429524
Application Number:	12429539
Application Number:	12423368
Application Number:	12351697
Application Number:	12508549
Application Number:	12511955
Application Number:	12392903
Application Number:	12545063
Application Number:	12470256
Application Number:	12557845
Application Number:	12436657
Application Number:	12432661
Application Number:	14256616
Application Number:	12436644
Application Number:	12432599
Application Number:	12400488
Application Number:	12557827
Application Number:	12430503
Application Number:	12557985

Property Type	Number
Application Number:	12427602
Application Number:	12557971
Application Number:	12427609
Application Number:	12427598
Application Number:	12545625
Application Number:	12392928
Application Number:	12500667
Application Number:	12489197
Application Number:	14034367
Application Number:	12401124
Application Number:	12402332
Application Number:	12392889
Application Number:	12392913
Application Number:	14030884
Application Number:	12436550
Application Number:	13465893
Application Number:	12502304
Application Number:	12551790
Application Number:	13758792
Application Number:	14275815
Application Number:	15096305
Application Number:	12507696
Application Number:	12508457
Application Number:	12507671
Application Number:	12507952
Application Number:	12508552
Application Number:	12390506
Application Number:	13784850
Application Number:	14994266
Application Number:	15887157
Application Number:	12428563
Application Number:	12506383
Application Number:	12506391
Application Number:	13677770
Application Number:	12465711
Application Number:	12465717
Application Number:	12540324
Application Number:	14199329

Property Type	Number
Application Number:	15852586
Application Number:	12546516
Application Number:	12426097
Application Number:	13432821
Application Number:	12478661
Application Number:	13685181
Application Number:	12547382
Application Number:	12541098
Application Number:	13648274
Application Number:	12551209
Application Number:	12984275
Application Number:	12550119
Application Number:	12550132
Application Number:	12479665
Application Number:	12423374
Application Number:	14752787
Application Number:	12405607
Application Number:	12481554
Application Number:	12479565
Application Number:	13742944
Application Number:	13742927
Application Number:	14805870
Application Number:	12415518
Application Number:	13728489
Application Number:	13728674
Application Number:	12415523
Application Number:	12479584
Application Number:	12463984
Application Number:	13855421
Application Number:	14095252
Application Number:	12415027
Application Number:	13941853
Application Number:	14293376
Application Number:	14885515
Application Number:	15961575
Application Number:	12426139
Application Number:	14171323
Application Number:	12426141

Property Type	Number
Application Number:	13547194
Application Number:	12463982
Application Number:	12463979
Application Number:	13584277
Application Number:	12433696
Application Number:	12463977
Application Number:	12433700
Application Number:	14192073
Application Number:	15350721
Application Number:	15817568
Application Number:	16180193
Application Number:	12433706
Application Number:	12464384
Application Number:	12486446
Application Number:	12464387
Application Number:	12486451
Application Number:	12496992
Application Number:	14996246
Application Number:	12415060
Application Number:	12487054
Application Number:	12551550
Application Number:	14281899
Application Number:	12434414
Application Number:	12416160
Application Number:	12411405
Application Number:	13738948
Application Number:	15707572
Application Number:	12358258
Application Number:	13275299
Application Number:	14037403
Application Number:	14855386
Application Number:	12534393
Application Number:	13771523
Application Number:	12506079
Application Number:	13654130
Application Number:	12408075
Application Number:	12502132
Application Number:	12502124

Property Type	Number
Application Number:	13598278
Application Number:	15428804
Application Number:	12578321
Application Number:	12578295
Application Number:	12578336
Application Number:	12582301
Application Number:	12648124
Application Number:	14021940
Application Number:	12649659
Application Number:	13410526
Application Number:	12605744
Application Number:	12606771
Application Number:	15600583
Application Number:	12997862
Application Number:	12643868
Application Number:	12624833
Application Number:	12713220
Application Number:	12644658
Application Number:	12648529
Application Number:	12648092
Application Number:	12621424
Application Number:	13747309
Application Number:	12996010
Application Number:	13923250
Application Number:	12732012
Application Number:	13887361
Application Number:	12996972
Application Number:	12635319
Application Number:	12642871
Application Number:	14294146
Application Number:	12635147
Application Number:	15049585
Application Number:	12578270
Application Number:	12577378
Application Number:	13519309
Application Number:	14987077
Application Number:	13702267
Application Number:	13702547

Property Type	Number
Application Number:	12685114
Application Number:	13751811
Application Number:	13058831
Application Number:	12625962
Application Number:	12626017
Application Number:	12620477
Application Number:	12638224
Application Number:	12577909
Application Number:	13785861
Application Number:	13145291
Application Number:	12642355
Application Number:	12579718
Application Number:	12580940
Application Number:	12618670
Application Number:	14047544
Application Number:	12611083
Application Number:	14644957
Application Number:	12724660
Application Number:	13479676
Application Number:	13919705
Application Number:	14851226
Application Number:	12641153
Application Number:	12714011
Application Number:	12536411
Application Number:	12714078
Application Number:	12999250
Application Number:	14073449
Application Number:	12997503
Application Number:	12715373
Application Number:	12719797
Application Number:	14094623
Application Number:	12716084
Application Number:	12640705
Application Number:	12720858
Application Number:	12715868
Application Number:	12719086
Application Number:	12719100
Application Number:	13787046

Property Type	Number
Application Number:	13382498
Application Number:	13148167
Application Number:	15469687
Application Number:	12717034
Application Number:	15112660
Application Number:	16137725
Application Number:	12714060
Application Number:	12999963
Application Number:	12999100
Application Number:	12720221
Application Number:	13572377
Application Number:	12724023
Application Number:	13058829
Application Number:	12999835
Application Number:	13002263
Application Number:	13974972
Application Number:	12719651
Application Number:	12881727
Application Number:	13202356
Application Number:	12997859
Application Number:	13121175
Application Number:	13466868
Application Number:	12637780
Application Number:	13498071
Application Number:	13002272
Application Number:	13413490
Application Number:	12720755
Application Number:	14253451
Application Number:	13384174
Application Number:	14497574
Application Number:	13202565
Application Number:	13126448
Application Number:	13131111
Application Number:	13729508
Application Number:	12995440
Application Number:	14043836
Application Number:	12993167
Application Number:	15991896



Property Type	Number
Application Number:	13260120
Application Number:	14208175
Application Number:	12999182
Application Number:	13202816
Application Number:	13128627
Application Number:	12999269
Application Number:	13003717
Application Number:	12999978
Application Number:	12999784
Application Number:	13202559
Application Number:	13125006
Application Number:	13059131
Application Number:	13322082
Application Number:	12999461
Application Number:	14303326
Application Number:	12999684
Application Number:	13126085
Application Number:	14657902
Application Number:	13063721
Application Number:	12999770
Application Number:	12999933
Application Number:	13202933
Application Number:	12999301
Application Number:	13142093
Application Number:	12999513
Application Number:	14472975
Application Number:	12999594
Application Number:	13394471
Application Number:	13322393
Application Number:	13126132
Application Number:	13546333
Application Number:	12999694
Application Number:	14055445
Application Number:	13257949
Application Number:	13059808
Application Number:	13816178
Application Number:	13260021
Application Number:	13129099

Property Type	Number
Application Number:	14035177
Application Number:	13264223
Application Number:	12895666
Application Number:	13059744
Application Number:	12999561
Application Number:	13124745
Application Number:	13056026
Application Number:	14001938
Application Number:	13144629
Application Number:	13054055
Application Number:	14084413
Application Number:	13129371
Application Number:	13129557
Application Number:	13946961
Application Number:	13641908
Application Number:	14820184
Application Number:	13378976
Application Number:	13383802
Application Number:	13517458
Application Number:	14176833
Application Number:	13383955
Application Number:	13002080
Application Number:	14176362
Application Number:	13143282
Application Number:	13002043
Application Number:	14169145
Application Number:	13148166
Application Number:	14124585
Application Number:	13501036
Application Number:	13054882
Application Number:	14574329
Application Number:	13126115
Application Number:	12999141
Application Number:	13950923
Application Number:	13500881
Application Number:	13123816
Application Number:	14048682
Application Number:	13318098

Property Type	Number
Application Number:	13531940
Application Number:	13319159
Application Number:	15080605
Application Number:	13129531
Application Number:	14172753
Application Number:	13501042
Application Number:	13260157
Application Number:	15587382
Application Number:	13318398
Application Number:	13387210
Application Number:	13499392
Application Number:	14583533
Application Number:	13128207
Application Number:	14065290
Application Number:	13058303
Application Number:	13122189
Application Number:	13121964
Application Number:	14506220
Application Number:	15156635
Application Number:	13391580
Application Number:	13604781
Application Number:	13057082
Application Number:	13499402
Application Number:	14069073
Application Number:	14054851
Application Number:	13059826
Application Number:	13061677
Application Number:	13127798
Application Number:	14632457
Application Number:	13388142
Application Number:	14074329
Application Number:	13144869
Application Number:	13580648
Application Number:	13147266
Application Number:	13500542
Application Number:	13262825
Application Number:	13139583
Application Number:	13554783

Property Type	Number
Application Number:	13974402
Application Number:	13514521
Application Number:	13130818
Application Number:	13975282
Application Number:	13139328
Application Number:	13382384
Application Number:	15071067
Application Number:	13264236
Application Number:	13264702
Application Number:	13816552
Application Number:	13144401
Application Number:	13503628
Application Number:	14332878
Application Number:	15613349
Application Number:	13263417
Application Number:	13263835
Application Number:	14797703
Application Number:	15979209
Application Number:	13980535
Application Number:	13500052
Application Number:	13380301
Application Number:	14979130
Application Number:	13133942
Application Number:	13384859
Application Number:	13145948
Application Number:	13386736
Application Number:	14259663
Application Number:	13515001
Application Number:	14973721
Application Number:	15877354
Application Number:	13142530
Application Number:	14440344
Application Number:	13940024
Application Number:	13260899
Application Number:	14538202
Application Number:	13143726
Application Number:	13497442
Application Number:	14859322

Property Type	Number
Application Number:	13443576
Application Number:	13503624
Application Number:	13461475
Application Number:	13266104
Application Number:	13517182
Application Number:	13140102
Application Number:	13260234
Application Number:	14850826
Application Number:	13139240
Application Number:	14655293
Application Number:	14913239
Application Number:	13202082
Application Number:	13391038
Application Number:	13319834
Application Number:	13389432
Application Number:	15047739
Application Number:	15815823
Application Number:	15026915
Application Number:	13381329
Application Number:	13383516
Application Number:	13375262
Application Number:	13383358
Application Number:	13390264
Application Number:	13519806
Application Number:	13519569
Application Number:	13512700
Application Number:	13255905
Application Number:	13142280
Application Number:	13521908
Application Number:	13389582
Application Number:	13650722
Application Number:	13642018
Application Number:	13390337
Application Number:	14483120
Application Number:	15854117
Application Number:	13386990
Application Number:	13377971
Application Number:	14265991

PATENT

REEL: 048373 FRAME: 0256

COBB\_029114

Property Type	Number
Application Number:	13391158
Application Number:	14657886
Application Number:	13377085
Application Number:	13386095
Application Number:	14480189
Application Number:	13319500
Application Number:	13554633
Application Number:	13387546
Application Number:	13264710
Application Number:	13496064
Application Number:	13642485
Application Number:	13498424
Application Number:	13320904
Application Number:	15361638
Application Number:	13321081
Application Number:	13264672
Application Number:	13383794
Application Number:	14640933
Application Number:	13703338
Application Number:	13321792
Application Number:	14046376
Application Number:	13509699
Application Number:	13579929
Application Number:	13390329
Application Number:	13578419
Application Number:	13702013
Application Number:	13262089
Application Number:	15018959
Application Number:	13636527
Application Number:	13821560
Application Number:	15633636
Application Number:	13879594
Application Number:	15469933
Application Number:	13395880
Application Number:	14572733
Application Number:	13808159
Application Number:	13946710
Application Number:	13816702

Property Type	Number
Application Number:	13814504
Application Number:	13636523
Application Number:	13816075
Application Number:	13823291
Application Number:	13574246
Application Number:	13640360
Application Number:	13511117
Application Number:	13824105
Application Number:	14226398
Application Number:	13822221
Application Number:	13978239
Application Number:	13497529
Application Number:	13445567
Application Number:	13614279
Application Number:	13956941
Application Number:	13577859
Application Number:	13389796
Application Number:	13823305
Application Number:	13520876
Application Number:	14566138
Application Number:	13640272
Application Number:	14703730
Application Number:	13637249
Application Number:	13511651
Application Number:	13389380
Application Number:	14873172
Application Number:	13502088
Application Number:	15145920
Application Number:	13580512
Application Number:	14559563
Application Number:	13515052
Application Number:	14593326
Application Number:	13514337
Application Number:	13503781
Application Number:	13515404
Application Number:	13509321
Application Number:	13811758
Application Number:	14567875

Property Type	Number
Application Number:	13522429
Application Number:	13813588
Application Number:	13519393
Application Number:	14736365
Application Number:	13519730
Application Number:	14476648
Application Number:	13814996
Application Number:	13498909
Application Number:	15604604
Application Number:	13811280
Application Number:	13642502
Application Number:	13500907
Application Number:	14649498
Application Number:	13579018
Application Number:	13577382
Application Number:	14260835
Application Number:	14480393
Application Number:	13640797
Application Number:	14400517
Application Number:	13813591
Application Number:	13642904
Application Number:	13818485
Application Number:	13989858
Application Number:	14232797
Application Number:	14239471
Application Number:	14716194
Application Number:	13977482
Application Number:	13521440
Application Number:	13502312
Application Number:	13811220
Application Number:	13642403
Application Number:	14710307
Application Number:	13637206
Application Number:	13810324
Application Number:	13579131
Application Number:	14943947
Application Number:	13883446
Application Number:	15174405



Property Type	Number
Application Number:	13579485
Application Number:	13882424
Application Number:	14394827
Application Number:	13521435
Application Number:	13577486
Application Number:	13497671
Application Number:	14437331
Application Number:	13950851
Application Number:	13522016
Application Number:	13761576
Application Number:	13812402
Application Number:	13738424
Application Number:	14396058
Application Number:	15836167
Application Number:	13877422
Application Number:	14687452
Application Number:	13749291
Application Number:	13634448
Application Number:	13582937
Application Number:	13825492
Application Number:	13879517
Application Number:	13512554
Application Number:	14301172
Application Number:	14654335
Application Number:	13634335
Application Number:	13878180
Application Number:	15651904
Application Number:	13884116
Application Number:	13817695
Application Number:	13520464
Application Number:	14686608
Application Number:	13640307
Application Number:	13761512
Application Number:	14297990
Application Number:	15462994
Application Number:	13700417
Application Number:	13576471
Application Number:	13521578

**PATENT**  
**REEL: 048373 FRAME: 0260**

COBB\_029118

Property Type	Number
Application Number:	13880194
Application Number:	13879544
Application Number:	13809543
Application Number:	13809049
Application Number:	14857316
Application Number:	13817533
Application Number:	15063614
Application Number:	13884256
Application Number:	13812400
Application Number:	14657716
Application Number:	13985523
Application Number:	13879751
Application Number:	14234990
Application Number:	14729368
Application Number:	13583706
Application Number:	14411025
Application Number:	13640283
Application Number:	13878531
Application Number:	13879700
Application Number:	13819776
Application Number:	15152159
Application Number:	13789010
Application Number:	13982607
Application Number:	13430090
Application Number:	13982344
Application Number:	14764696
Application Number:	13811733
Application Number:	14491717
Application Number:	13885306
Application Number:	13810279
Application Number:	13879723
Application Number:	13812967
Application Number:	13640046
Application Number:	14724713
Application Number:	13634502
Application Number:	13989798
Application Number:	15450020
Application Number:	13811643

**PATENT**  
**REEL: 048373 FRAME: 0261**

COBB\_029119

Property Type	Number
Application Number:	13819889
Application Number:	13634013
Application Number:	13879708
Application Number:	13997890
Application Number:	14541588
Application Number:	13823361
Application Number:	13582912
Application Number:	14725874
Application Number:	14009279
Application Number:	13995411
Application Number:	13827155
Application Number:	13817008
Application Number:	14006801
Application Number:	14005520
Application Number:	14123231
Application Number:	14360657
Application Number:	13640469
Application Number:	14470733
Application Number:	13635395
Application Number:	14005232
Application Number:	13578025
Application Number:	14488453
Application Number:	13876473
Application Number:	13940017
Application Number:	13811384
Application Number:	14873169
Application Number:	14770756
Application Number:	14768532
Application Number:	15289714
Application Number:	14233848
Application Number:	13830068
Application Number:	13813715
Application Number:	13700683
Application Number:	14919296
Application Number:	14771400
Application Number:	14363049
Application Number:	13877413
Application Number:	13816717

Property Type	Number
Application Number:	15027170
Application Number:	13578518
Application Number:	14763739
Application Number:	13978655
Application Number:	13816988
Application Number:	13877377
Application Number:	14827476
Application Number:	13879713
Application Number:	14001870
Application Number:	13877216
Application Number:	14407072
Application Number:	15336808
Application Number:	14411917
Application Number:	13816134
Application Number:	14796259
Application Number:	13819745
Application Number:	13982620
Application Number:	13876160
Application Number:	14992042
Application Number:	15477229
Application Number:	13995339
Application Number:	14009750
Application Number:	14418871
Application Number:	14112037
Application Number:	14112036
Application Number:	14769778
Application Number:	14785323
Application Number:	13701445
Application Number:	13980033
Application Number:	13642775
Application Number:	13810496
Application Number:	15361622
Application Number:	13879941
Application Number:	13643041
Application Number:	13816102
Application Number:	15002695
Application Number:	14909419
Application Number:	14888386

**PATENT**  
**REEL: 048373 FRAME: 0263**

COBB\_029121

Property Type	Number
Application Number:	13816419
Application Number:	13823104
Application Number:	14901403
Application Number:	13701197
Application Number:	14995788
Application Number:	13810818
Application Number:	14006071
Application Number:	14118006
Application Number:	13990309
Application Number:	14820431
Application Number:	14112275
Application Number:	13982807
Application Number:	15268226
Application Number:	13988015
Application Number:	13876163
Application Number:	13702907
Application Number:	14110119
Application Number:	13991382
Application Number:	14851245
Application Number:	15708517
Application Number:	15100616
Application Number:	13881416
Application Number:	13881540
Application Number:	13878538
Application Number:	14764302
Application Number:	15394505
Application Number:	14910874
Application Number:	14129864
Application Number:	14004902
Application Number:	14356391
Application Number:	14915217
Application Number:	13878126
Application Number:	14739443
Application Number:	14766971
Application Number:	14363792
Application Number:	15474577
Application Number:	13885996
Application Number:	13885160

Property Type	Number
Application Number:	14426157
Application Number:	13994882
Application Number:	14009095
Application Number:	14031056
Application Number:	14769818
Application Number:	14350038
Application Number:	15463862
Application Number:	14406147
Application Number:	14414452
Application Number:	13977670
Application Number:	13876766
Application Number:	13978877
Application Number:	14114524
Application Number:	13988417
Application Number:	14916743
Application Number:	14400557
Application Number:	14110132
Application Number:	14785477
Application Number:	14906540
Application Number:	13980041
Application Number:	14840612
Application Number:	14371180
Application Number:	15401114
Application Number:	14342333
Application Number:	14769806
Application Number:	14234380
Application Number:	14238457
Application Number:	14783309
Application Number:	15863003
Application Number:	14390383
Application Number:	14763161
Application Number:	14894999
Application Number:	14356150
Application Number:	14351508
Application Number:	13850671
Application Number:	14237084
Application Number:	14910640
Application Number:	14785582

Property Type	Number
Application Number:	14114732
Application Number:	14118626
Application Number:	14124569
Application Number:	14358146
Application Number:	14344795
Application Number:	14351829
Application Number:	14348143
Application Number:	15031687
Application Number:	14009101
Application Number:	14575809
Application Number:	14468238
Application Number:	14373026
Application Number:	15402389
Application Number:	14769753
Application Number:	14892525
Application Number:	14238470
Application Number:	15104125
Application Number:	14119171
Application Number:	14728645
Application Number:	14457128
Application Number:	14003770
Application Number:	15031701
Application Number:	15300272
Application Number:	14364076
Application Number:	14376816
Application Number:	14127969
Application Number:	14796238
Application Number:	14898369
Application Number:	14235958
Application Number:	14238542
Application Number:	14901676
Application Number:	14783472
Application Number:	14379630
Application Number:	14352655
Application Number:	15017982
Application Number:	14350771
Application Number:	14386300
Application Number:	14306406

Property Type	Number
Application Number:	14647079
Application Number:	14376133
Application Number:	14372008
Application Number:	15035472
Application Number:	14239970
Application Number:	14414382
Application Number:	15024888
Application Number:	15107607
Application Number:	14899123
Application Number:	15123985
Application Number:	14907285
Application Number:	14380698
Application Number:	15197767
Application Number:	14241052
Application Number:	14379492
Application Number:	14594253
Application Number:	15032045
Application Number:	14906752
Application Number:	15125571
Application Number:	14373897
Application Number:	14380372
Application Number:	14384677
Application Number:	15867211
Application Number:	14347894
Application Number:	14887902
Application Number:	15633235
Application Number:	14359247
Application Number:	14526434
Application Number:	14351070
Application Number:	14649505
Application Number:	15128895
Application Number:	14758404
Application Number:	15495126
Application Number:	14118992
Application Number:	15110699
Application Number:	14337748
Application Number:	14380371
Application Number:	14457960



Property Type	Number
Application Number:	15252250
Application Number:	14445991
Application Number:	15299483
Application Number:	14450203
Application Number:	14128201
Application Number:	14812664
Application Number:	14373625
Application Number:	16198482
Application Number:	15125576
Application Number:	14370436
Application Number:	14376125
Application Number:	14371730
Application Number:	15495517
Application Number:	14353238
Application Number:	14362583
Application Number:	15120446
Application Number:	14651091
Application Number:	15612452
Application Number:	15483740
Application Number:	14360288
Application Number:	14364017
Application Number:	15117332
Application Number:	14372407
Application Number:	14390368
Application Number:	14372439
Application Number:	15306004
Application Number:	15306021
Application Number:	14548264
Application Number:	14761599
Application Number:	14370637
Application Number:	14515425
Application Number:	15494109
Application Number:	14603277
Application Number:	14413414
Application Number:	14338217
Application Number:	15112131
Application Number:	15120751
Application Number:	14647075

PATENT

REEL: 048373 FRAME: 0268

COBB\_029126

Property Type	Number
Application Number:	15424065
Application Number:	14373829
Application Number:	15470073
Application Number:	14375296
Application Number:	14442093
Application Number:	14758812
Application Number:	15125523
Application Number:	14457479
Application Number:	14295286
Application Number:	14488125
Application Number:	15712475
Application Number:	14291124
Application Number:	14666058
Application Number:	14324074
Application Number:	14456965
Application Number:	14316527
Application Number:	14430891
Application Number:	14380908
Application Number:	14492186
Application Number:	14760951
Application Number:	14383720
Application Number:	14873401
Application Number:	15107927
Application Number:	15109833
Application Number:	14421101
Application Number:	15123144
Application Number:	14482958
Application Number:	14475360
Application Number:	15508416
Application Number:	15309393
Application Number:	14391640
Application Number:	15436078
Application Number:	14420858
Application Number:	15729126
Application Number:	14329795
Application Number:	14334465
Application Number:	15106851
Application Number:	14479817

PATENT

REEL: 048373 FRAME: 0269

COBB\_029127

Property Type	Number
Application Number:	14649894
Application Number:	14282055
Application Number:	14297450
Application Number:	14293363
Application Number:	14304653
Application Number:	16111577
Application Number:	14308262
Application Number:	14413418
Application Number:	14573259
Application Number:	14405084
Application Number:	14413223
Application Number:	14311807
Application Number:	15700907
Application Number:	14630644
Application Number:	14290883
Application Number:	14480007
Application Number:	16101285
Application Number:	14523458
Application Number:	14567278
Application Number:	14596078
Application Number:	14496092
Application Number:	14479909
Application Number:	14455312
Application Number:	14934774
Application Number:	14741328
Application Number:	14325280
Application Number:	14558447
Application Number:	14494319
Application Number:	14458577
Application Number:	15286222
Application Number:	14454326
Application Number:	14665472
Application Number:	14479945
Application Number:	14665726
Application Number:	14761935
Application Number:	14614763
Application Number:	14438223
Application Number:	14431034

Property Type	Number
Application Number:	14437831
Application Number:	14651191
Application Number:	14858979
Application Number:	14858970
Application Number:	14859096
Application Number:	14859108
Application Number:	14858947
Application Number:	14761253
Application Number:	14787322
Application Number:	15581758
Application Number:	12665704
Application Number:	14412000
Application Number:	14410524
Application Number:	14403124
Application Number:	14959000
Application Number:	14761544
Application Number:	15032331
Application Number:	15111231
Application Number:	13580945
Application Number:	13884603
Application Number:	14410529
Application Number:	15030037
Application Number:	15117395
Application Number:	15555893
Application Number:	15308018
Application Number:	13321316
Application Number:	13126109
Application Number:	13881148
Application Number:	13380767
Application Number:	13636027
Application Number:	14223017
Application Number:	14778436
Application Number:	14898442
Application Number:	14443867
Application Number:	14761268
Application Number:	13837904
Application Number:	14982431
Application Number:	14777282

**PATENT**  
**REEL: 048373 FRAME: 0271**

COBB\_029129

Property Type	Number
Application Number:	14780492
Application Number:	14877635
Application Number:	14122559
Application Number:	14762691
Application Number:	13576000
Application Number:	15287367
Application Number:	13018477
Application Number:	12609011
Application Number:	12634251
Application Number:	12171812
Application Number:	12540724
Application Number:	12540843
Application Number:	12707400
Application Number:	12507938
Application Number:	12485692
Application Number:	12727961
Application Number:	12372556
Application Number:	13615264
Application Number:	14247098
Application Number:	12487781
Application Number:	12999029
Application Number:	12999266
Application Number:	12997831
Application Number:	12836843
Application Number:	12727049
Application Number:	12785040
Application Number:	12827906
Application Number:	12847571
Application Number:	13795816
Application Number:	13274001
Application Number:	15006818
Application Number:	15833579
Application Number:	13835486
Application Number:	12200737
Application Number:	13185270
Application Number:	12198842
Application Number:	12545678
Application Number:	13758115

Property Type	Number
Application Number:	12606880
Application Number:	12498228
Application Number:	14322695
Application Number:	12498265
Application Number:	12493800
Application Number:	12472168
Application Number:	12498204
Application Number:	13485241
Application Number:	12620602
Application Number:	13279945
Application Number:	12432967
Application Number:	12498257
Application Number:	12430447
Application Number:	12606852
Application Number:	12482997
Application Number:	12625314
Application Number:	14023926
Application Number:	14225368
Application Number:	12633575
Application Number:	14173422
Application Number:	12695288
Application Number:	12650031
Application Number:	12696652
Application Number:	13033547
Application Number:	13262886
Application Number:	13979589
Application Number:	14357770
Application Number:	14446155
Application Number:	14335580
Application Number:	15023694
Application Number:	14394679
Application Number:	13977893
Application Number:	14319740
Application Number:	12754916
Application Number:	12628721
Application Number:	12632437
Application Number:	12633437
Application Number:	12756612

**PATENT**  
**REEL: 048373 FRAME: 0273**

COBB\_029131

Property Type	Number
Application Number:	13755728
Application Number:	14142209
Application Number:	13377493
Application Number:	13376102
Application Number:	13496705
Application Number:	13497477
Application Number:	14150110
Application Number:	13503815
Application Number:	13513068
Application Number:	14134899
Application Number:	14364574
Application Number:	13991605
Application Number:	15141629
Application Number:	13825661
Application Number:	13884721
Application Number:	14413635
Application Number:	13879804
Application Number:	14769808
Application Number:	14455780
Application Number:	14455699
Application Number:	14309554
Application Number:	14455387
Application Number:	14902480
Application Number:	14464420
Application Number:	15658027
Application Number:	14539790
Application Number:	14910809
Application Number:	14547311
Application Number:	14681849
Application Number:	13997036
Application Number:	13504841
Application Number:	13458899
Application Number:	14098184
Application Number:	14629408
Application Number:	15887561
Application Number:	13324587
Application Number:	13509387
Application Number:	13824761

Property Type	Number
Application Number:	15874433
Application Number:	14810231
Application Number:	12791816
Application Number:	13439251
Application Number:	12951803
Application Number:	13133143
Application Number:	14255715
Application Number:	13133936
Application Number:	13141242
Application Number:	13376440
Application Number:	14288266
Application Number:	13376502
Application Number:	14208877
Application Number:	12950262
Application Number:	14127640
Application Number:	13382888
Application Number:	13481656
Application Number:	13505059
Application Number:	14251396
Application Number:	13503349
Application Number:	13818587
Application Number:	13821391
Application Number:	15021917
Application Number:	11886020
Application Number:	12708410
Application Number:	12999434
Application Number:	13590033
Application Number:	12196100
Application Number:	12195943
Application Number:	12182882
Application Number:	12196086
Application Number:	12196002
Application Number:	12175128
Application Number:	12191900
Application Number:	10586148
Application Number:	12439441
Application Number:	12524254
Application Number:	12523917

**PATENT**  
**REEL: 048373 FRAME: 0275**

COBB\_029133



Property Type	Number
Application Number:	13860674
Application Number:	12089855
Application Number:	12712760
Application Number:	13710346
Application Number:	13710330
Application Number:	12647116
Application Number:	12938193
Application Number:	14228606
Application Number:	11665337
Application Number:	12161128
Application Number:	12196871
Application Number:	12209851
Application Number:	12857283
Application Number:	12836733
Application Number:	12767924
Application Number:	12233339
Application Number:	12197961
Application Number:	13089206
Application Number:	12238306
Application Number:	12234529
Application Number:	14622092
Application Number:	12198744
Application Number:	13365115
Application Number:	12211006
Application Number:	12234560
Application Number:	12985581
Application Number:	12197754
Application Number:	12196092
Application Number:	12194361
Application Number:	12199733
Application Number:	12198815
Application Number:	13210274
Application Number:	12198835
Application Number:	12192024
Application Number:	12195347
Application Number:	12234491
Application Number:	13030065
Application Number:	12196194

Property Type	Number
Application Number:	12200447
Application Number:	13346094
Application Number:	12197994
Application Number:	12195330
Application Number:	12199358
Application Number:	13404517
Application Number:	12198790
Application Number:	12197568
Application Number:	12405764
Application Number:	13523019
Application Number:	12665435
Application Number:	12365404
Application Number:	12665601
Application Number:	12665308
Application Number:	12665635
Application Number:	12354463
Application Number:	13885390
Application Number:	14778366
Application Number:	14758421
Application Number:	14758210
Application Number:	15507552
Application Number:	15502640
Application Number:	12770466
Application Number:	15117998
Application Number:	12516493
Application Number:	12516497
Application Number:	12516500
Application Number:	12516705
Application Number:	12516643
Application Number:	12516715
Application Number:	12521244
Application Number:	12153661
Application Number:	13404667
Application Number:	12153662
Application Number:	13414794
Application Number:	12529217
Application Number:	13739638
Application Number:	12529229

Property Type	Number
Application Number:	12529231
Application Number:	12545420
Application Number:	12995751
Application Number:	13955846
Application Number:	13260109
Application Number:	13147594
Application Number:	15602045
Application Number:	12551093
Application Number:	12568584
Application Number:	13853682
Application Number:	12567684
Application Number:	14024015
Application Number:	14311443
Application Number:	12569480
Application Number:	13837956
Application Number:	13394764
Application Number:	13257791
Application Number:	14602378
Application Number:	13322335
Application Number:	13502011
Application Number:	13978700
Application Number:	13290146
Application Number:	14803074
Application Number:	15197458
Application Number:	13980573
Application Number:	12440150
Application Number:	14692318
Application Number:	12515248
Application Number:	12445261
Application Number:	12520966
Application Number:	13269974
Application Number:	12666222
Application Number:	14221481
Application Number:	15495741
Application Number:	12895568
Application Number:	13466554
Application Number:	13548226
Application Number:	14110743

**PATENT**  
**REEL: 048373 FRAME: 0278**

COBB\_029136

Property Type	Number
Application Number:	14115085
Application Number:	15189297
Application Number:	12727062
Application Number:	12813724
Application Number:	13256635
Application Number:	13265229
Application Number:	12510040
Application Number:	14058147
Application Number:	12368516
Application Number:	12420714
Application Number:	12422683
Application Number:	12485828
Application Number:	12422138
Application Number:	12396039
Application Number:	12479438
Application Number:	13653215
Application Number:	12511424
Application Number:	14166802
Application Number:	12490293
Application Number:	12649013
Application Number:	12512635
Application Number:	12512792
Application Number:	12389909
Application Number:	12421949
Application Number:	12418681
Application Number:	12479574
Application Number:	12511814
Application Number:	12422677
Application Number:	12485814
Application Number:	13592261
Application Number:	12365800
Application Number:	12253825
Application Number:	12430788
Application Number:	12420724
Application Number:	12365812
Application Number:	12723578
Application Number:	13257305
Application Number:	12626077

Property Type	Number
Application Number:	13920814
Application Number:	13121346
Application Number:	12996772
Application Number:	13172741
Application Number:	14322883
Application Number:	13819267
Application Number:	13297101
Application Number:	14345211
Application Number:	13661017
Application Number:	13882687
Application Number:	14349313
Application Number:	13981080
Application Number:	13881147
Application Number:	14342191
Application Number:	13814918
Application Number:	14110708
Application Number:	14364656
Application Number:	15038974
Application Number:	14353266
Application Number:	14917621
Application Number:	14436047
Application Number:	13148208
Application Number:	13492011
Application Number:	12474550
Application Number:	12628064
Application Number:	13915195
Application Number:	12720952
Application Number:	13209073
Application Number:	14856146
Application Number:	12466759
Application Number:	13407456
Application Number:	12993333
Application Number:	13101087
Application Number:	13505715
Application Number:	13146308
Application Number:	14427037
Application Number:	13814710
Application Number:	14779172

Property Type	Number
Application Number:	12665431
Application Number:	12845360
Application Number:	15052345
Application Number:	13082102
Application Number:	13812058
Application Number:	13812089
Application Number:	14122229
Application Number:	15054162
Application Number:	14115093
Application Number:	15422456
Application Number:	15027644
Application Number:	14492748
Application Number:	14492811
Application Number:	13808910
Application Number:	13579468
Application Number:	12634260
Application Number:	12627737
Application Number:	13375135
Application Number:	12726945
Application Number:	13381977
Application Number:	13030899
Application Number:	13320748
Application Number:	13320368
Application Number:	13266128
Application Number:	13389562
Application Number:	14054370
Application Number:	12201448
Application Number:	13224238
Application Number:	12199685
Application Number:	13488177
Application Number:	12202000
Application Number:	13291935
Application Number:	12199748
Application Number:	12201990
Application Number:	12713401
Application Number:	12707498
Application Number:	12683238
Application Number:	13629975

**PATENT**  
**REEL: 048373 FRAME: 0281**

COBB\_029139

Property Type	Number
Application Number:	12713443
Application Number:	12606824
Application Number:	12468329
Application Number:	13554182
Application Number:	12550547
Application Number:	13151080
Application Number:	12548959
Application Number:	13246593
Application Number:	12500946
Application Number:	13407488
Application Number:	12549012
Application Number:	14054676
Application Number:	12650058
Application Number:	12650175
Application Number:	14559558
Application Number:	12650225
Application Number:	14027049
Application Number:	12540875
Application Number:	12645219
Application Number:	12500904
Application Number:	12762183
Application Number:	14260088
Application Number:	12579128
Application Number:	12642556
Application Number:	12468300
Application Number:	13559640
Application Number:	12507718
Application Number:	14054679
Application Number:	12648110
Application Number:	14813687
Application Number:	12620761
Application Number:	13495266
Application Number:	12633596
Application Number:	12604290
Application Number:	13867906
Application Number:	12665322
Application Number:	12665636
Application Number:	12262644

Property Type	Number
Application Number:	12629636
Application Number:	12770281
Application Number:	13321936
Application Number:	12716803
Application Number:	14197414
Application Number:	13124357
Application Number:	12881700
Application Number:	14235603
Application Number:	13078154
Application Number:	13552417
Application Number:	14124243
Application Number:	13489876
Application Number:	15156709
Application Number:	15046031
Application Number:	13597323
Application Number:	12568000
Application Number:	13678920
Application Number:	12629187
Application Number:	13788416
Application Number:	12646681
Application Number:	12648297
Application Number:	13897251
Application Number:	12647255
Application Number:	12962174
Application Number:	13039737
Application Number:	13133637
Application Number:	15019408
Application Number:	13580621
Application Number:	13703133
Application Number:	14110614
Application Number:	15023068
Application Number:	15021133
Application Number:	15923512
Application Number:	14890683
Application Number:	13265480
Application Number:	13809494
Application Number:	13809328
Application Number:	13178361



Property Type	Number
Application Number:	14049417
Application Number:	15063829
Application Number:	12854116
Application Number:	13265325
Application Number:	12647072
Application Number:	13564547
Application Number:	12639403
Application Number:	12638167
Application Number:	12636370
Application Number:	12434728
Application Number:	12643992
Application Number:	13448472
Application Number:	12646435
Application Number:	12768467
Application Number:	13717061
Application Number:	12725053
Application Number:	12627725
Application Number:	13677235
Application Number:	13202941
Application Number:	12827613
Application Number:	15214192
Application Number:	13504440
Application Number:	14617290
Application Number:	13160916
Application Number:	13817723
Application Number:	13807971
Application Number:	13226321
Application Number:	14459860
Application Number:	13883505
Application Number:	15286231
Application Number:	13581616
Application Number:	14093665
Application Number:	13583742
Application Number:	15144585
Application Number:	16001893
Application Number:	14413395
Application Number:	14888193
Application Number:	13472987

Property Type	Number
Application Number:	14124850
Application Number:	14410109
Application Number:	15193224
Application Number:	13825398
Application Number:	14397197
Application Number:	14389702
Application Number:	14783811
Application Number:	14384889
Application Number:	13528981
Application Number:	14459956
Application Number:	14077806
Application Number:	14781016
Application Number:	14912363
Application Number:	14914499
Application Number:	15103172
Application Number:	15029945
Application Number:	14742444
Application Number:	14634662
Application Number:	13885395
Application Number:	15269577
Application Number:	14350044
Application Number:	15118120
Application Number:	13142843
Application Number:	14334979
Application Number:	13017303
Application Number:	13147502
Application Number:	12870569
Application Number:	12883649
Application Number:	13878944
Application Number:	13880299
Application Number:	13885839
Application Number:	13880020
Application Number:	13321146
Application Number:	13371063
Application Number:	13072916
Application Number:	13264712
Application Number:	13176565
Application Number:	14397478

Property Type	Number
Application Number:	13982458
Application Number:	13359798
Application Number:	14016281
Application Number:	13482564
Application Number:	14891046
Application Number:	14380726
Application Number:	14429064
Application Number:	15026705
Application Number:	14782600
Application Number:	14435432
Application Number:	14131899
Application Number:	14644220
Application Number:	14462580
Application Number:	15100328
Application Number:	14770095
Application Number:	15115263
Application Number:	15122404
Application Number:	14683070
Application Number:	14818250
Application Number:	14883645
Application Number:	12620126
Application Number:	12824880
Application Number:	14907296
Application Number:	13838562
Application Number:	14723341
Application Number:	16062088
Application Number:	12819868
Application Number:	12702868
Application Number:	12623956
Application Number:	12755718
Application Number:	12717774
Application Number:	12543348
Application Number:	12627408
Application Number:	13692564
Application Number:	12650894
Application Number:	12637180
Application Number:	12708953
Application Number:	13932711

Property Type	Number
Application Number:	12984328
Application Number:	13257948
Application Number:	12842020
Application Number:	13139114
Application Number:	12794261
Application Number:	13140747
Application Number:	13725323
Application Number:	12794272
Application Number:	12764294
Application Number:	13390937
Application Number:	12703594
Application Number:	13023027
Application Number:	13265619
Application Number:	12491909
Application Number:	12550210
Application Number:	12550977
Application Number:	12551101
Application Number:	12551109
Application Number:	12510246
Application Number:	12533084
Application Number:	12551038
Application Number:	12551010
Application Number:	12649474
Application Number:	12539372
Application Number:	12511607
Application Number:	12645695
Application Number:	12420968
Application Number:	12420984
Application Number:	12430635
Application Number:	13658757
Application Number:	12419430
Application Number:	12647170
Application Number:	12636418
Application Number:	12533112
Application Number:	12550168
Application Number:	14816950
Application Number:	12550177
Application Number:	13851830

Property Type	Number
Application Number:	12618239
Application Number:	12620990
Application Number:	12560904
Application Number:	12840925
Application Number:	12643207
Application Number:	14177493
Application Number:	12480508
Application Number:	13560086
Application Number:	12550199
Application Number:	14152663
Application Number:	12726091
Application Number:	12718159
Application Number:	13161218
Application Number:	12652608
Application Number:	12771730
Application Number:	13933775
Application Number:	13390662
Application Number:	13139223
Application Number:	13376542
Application Number:	13265288
Application Number:	13139413
Application Number:	13265498
Application Number:	12869020
Application Number:	14842502
Application Number:	13994015
Application Number:	13318601
Application Number:	12502933
Application Number:	12505539
Application Number:	13258301
Application Number:	14422560
Application Number:	14422558
Application Number:	14441320
Application Number:	15032636
Application Number:	14422591
Application Number:	14647959
Application Number:	14422932
Application Number:	15537274
Application Number:	15508028

PATENT

REEL: 048373 FRAME: 0288

COBB\_029146

Property Type	Number
Application Number:	15301037
Application Number:	15126248
Application Number:	12600986
Application Number:	12212406
Application Number:	12601790
Application Number:	12665264
Application Number:	12276855
Application Number:	13153002
Application Number:	14931231
Application Number:	12665316
Application Number:	12601794
Application Number:	13237449
Application Number:	12665242
Application Number:	12665591
Application Number:	12372585
Application Number:	13755846
Application Number:	12393458
Application Number:	12602072
Application Number:	12601595
Application Number:	12664946
Application Number:	12528776
Application Number:	12128126
Application Number:	12523682
Application Number:	12599638
Application Number:	12328341
Application Number:	13576277
Application Number:	14903922
Application Number:	12600144
Application Number:	12600140
Application Number:	13053006
Application Number:	13030344
Application Number:	14149611
Application Number:	13811609
Application Number:	14152320
Application Number:	13811835
Application Number:	13814610
Application Number:	14407757
Application Number:	14000207

Property Type	Number
Application Number:	13813065
Application Number:	14787589
Application Number:	14431018
Application Number:	14435842
Application Number:	14889395
Application Number:	14651116
Application Number:	14907327
Application Number:	14773216
Application Number:	15030583
Application Number:	15306420
Application Number:	15030580
Application Number:	15301715
Application Number:	15033002
Application Number:	15124397
Application Number:	15316429
Application Number:	15313873
Application Number:	15313855
Application Number:	15534906
Application Number:	15117426
Application Number:	15310760
Application Number:	15313702
Application Number:	14438783
Application Number:	14438517
Application Number:	14891386
Application Number:	13403922
Application Number:	13399875
Application Number:	14284311
Application Number:	12725253
Application Number:	12755553
Application Number:	12762500
Application Number:	14171436
Application Number:	12813757
Application Number:	12813793
Application Number:	12551115
Application Number:	14379744
Application Number:	13673916
Application Number:	13791823
Application Number:	14728749

Property Type	Number
Application Number:	14443349
Application Number:	14899829
Application Number:	14451859
Application Number:	14451870
Application Number:	14451899
Application Number:	15856819
Application Number:	14502864
Application Number:	14726406
Application Number:	14479269
Application Number:	14944925
Application Number:	15112156
Application Number:	14451935
Application Number:	14793328
Application Number:	14796888
Application Number:	12731323
Application Number:	12762224
Application Number:	13060316
Application Number:	12874411
Application Number:	14832916
Application Number:	15224535
Application Number:	12624374
Application Number:	12255572
Application Number:	12620110
Application Number:	12487313
Application Number:	13652269
Application Number:	12645709
Application Number:	12726960
Application Number:	12521114

**CORRESPONDENCE DATA**

**Fax Number:** (650)838-2001

*Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.*

**Phone:** 650-838-2000

**Email:** tami.tucker@alston.com

**Correspondent Name:** MICHELE GLESSNER

**Address Line 1:** ALSTON & BIRD LLP

**Address Line 2:** 101 SOUTH TRYON STREET, SUITE 4000

**Address Line 4:** CHARLOTTE, NORTH CAROLINA 28280-4000



<b>ATTORNEY DOCKET NUMBER:</b>	061718/524082
<b>NAME OF SUBMITTER:</b>	MICHELE GLESSNER
<b>SIGNATURE:</b>	/Michele Glessner/
<b>DATE SIGNED:</b>	01/29/2019

**Total Attachments: 131**

source=PatentSecurityAgreement#page1.tif  
source=PatentSecurityAgreement#page2.tif  
source=PatentSecurityAgreement#page3.tif  
source=PatentSecurityAgreement#page4.tif  
source=PatentSecurityAgreement#page5.tif  
source=PatentSecurityAgreement#page6.tif  
source=PatentSecurityAgreement#page7.tif  
source=PatentSecurityAgreement#page8.tif  
source=PatentSecurityAgreement#page9.tif  
source=PatentSecurityAgreement#page10.tif  
source=PatentSecurityAgreement#page11.tif  
source=PatentSecurityAgreement#page12.tif  
source=PatentSecurityAgreement#page13.tif  
source=PatentSecurityAgreement#page14.tif  
source=PatentSecurityAgreement#page15.tif  
source=PatentSecurityAgreement#page16.tif  
source=PatentSecurityAgreement#page17.tif  
source=PatentSecurityAgreement#page18.tif  
source=PatentSecurityAgreement#page19.tif  
source=PatentSecurityAgreement#page20.tif  
source=PatentSecurityAgreement#page21.tif  
source=PatentSecurityAgreement#page22.tif  
source=PatentSecurityAgreement#page23.tif  
source=PatentSecurityAgreement#page24.tif  
source=PatentSecurityAgreement#page25.tif  
source=PatentSecurityAgreement#page26.tif  
source=PatentSecurityAgreement#page27.tif  
source=PatentSecurityAgreement#page28.tif  
source=PatentSecurityAgreement#page29.tif  
source=PatentSecurityAgreement#page30.tif  
source=PatentSecurityAgreement#page31.tif  
source=PatentSecurityAgreement#page32.tif  
source=PatentSecurityAgreement#page33.tif  
source=PatentSecurityAgreement#page34.tif  
source=PatentSecurityAgreement#page35.tif  
source=PatentSecurityAgreement#page36.tif  
source=PatentSecurityAgreement#page37.tif  
source=PatentSecurityAgreement#page38.tif  
source=PatentSecurityAgreement#page39.tif  
source=PatentSecurityAgreement#page40.tif  
source=PatentSecurityAgreement#page41.tif  
source=PatentSecurityAgreement#page42.tif

source=PatentSecurityAgreement#page43.tif  
source=PatentSecurityAgreement#page44.tif  
source=PatentSecurityAgreement#page45.tif  
source=PatentSecurityAgreement#page46.tif  
source=PatentSecurityAgreement#page47.tif  
source=PatentSecurityAgreement#page48.tif  
source=PatentSecurityAgreement#page49.tif  
source=PatentSecurityAgreement#page50.tif  
source=PatentSecurityAgreement#page51.tif  
source=PatentSecurityAgreement#page52.tif  
source=PatentSecurityAgreement#page53.tif  
source=PatentSecurityAgreement#page54.tif  
source=PatentSecurityAgreement#page55.tif  
source=PatentSecurityAgreement#page56.tif  
source=PatentSecurityAgreement#page57.tif  
source=PatentSecurityAgreement#page58.tif  
source=PatentSecurityAgreement#page59.tif  
source=PatentSecurityAgreement#page60.tif  
source=PatentSecurityAgreement#page61.tif  
source=PatentSecurityAgreement#page62.tif  
source=PatentSecurityAgreement#page63.tif  
source=PatentSecurityAgreement#page64.tif  
source=PatentSecurityAgreement#page65.tif  
source=PatentSecurityAgreement#page66.tif  
source=PatentSecurityAgreement#page67.tif  
source=PatentSecurityAgreement#page68.tif  
source=PatentSecurityAgreement#page69.tif  
source=PatentSecurityAgreement#page70.tif  
source=PatentSecurityAgreement#page71.tif  
source=PatentSecurityAgreement#page72.tif  
source=PatentSecurityAgreement#page73.tif  
source=PatentSecurityAgreement#page74.tif  
source=PatentSecurityAgreement#page75.tif  
source=PatentSecurityAgreement#page76.tif  
source=PatentSecurityAgreement#page77.tif  
source=PatentSecurityAgreement#page78.tif  
source=PatentSecurityAgreement#page79.tif  
source=PatentSecurityAgreement#page80.tif  
source=PatentSecurityAgreement#page81.tif  
source=PatentSecurityAgreement#page82.tif  
source=PatentSecurityAgreement#page83.tif  
source=PatentSecurityAgreement#page84.tif  
source=PatentSecurityAgreement#page85.tif  
source=PatentSecurityAgreement#page86.tif  
source=PatentSecurityAgreement#page87.tif  
source=PatentSecurityAgreement#page88.tif  
source=PatentSecurityAgreement#page89.tif  
source=PatentSecurityAgreement#page90.tif

source=PatentSecurityAgreement#page91.tif  
source=PatentSecurityAgreement#page92.tif  
source=PatentSecurityAgreement#page93.tif  
source=PatentSecurityAgreement#page94.tif  
source=PatentSecurityAgreement#page95.tif  
source=PatentSecurityAgreement#page96.tif  
source=PatentSecurityAgreement#page97.tif  
source=PatentSecurityAgreement#page98.tif  
source=PatentSecurityAgreement#page99.tif  
source=PatentSecurityAgreement#page100.tif  
source=PatentSecurityAgreement#page101.tif  
source=PatentSecurityAgreement#page102.tif  
source=PatentSecurityAgreement#page103.tif  
source=PatentSecurityAgreement#page104.tif  
source=PatentSecurityAgreement#page105.tif  
source=PatentSecurityAgreement#page106.tif  
source=PatentSecurityAgreement#page107.tif  
source=PatentSecurityAgreement#page108.tif  
source=PatentSecurityAgreement#page109.tif  
source=PatentSecurityAgreement#page110.tif  
source=PatentSecurityAgreement#page111.tif  
source=PatentSecurityAgreement#page112.tif  
source=PatentSecurityAgreement#page113.tif  
source=PatentSecurityAgreement#page114.tif  
source=PatentSecurityAgreement#page115.tif  
source=PatentSecurityAgreement#page116.tif  
source=PatentSecurityAgreement#page117.tif  
source=PatentSecurityAgreement#page118.tif  
source=PatentSecurityAgreement#page119.tif  
source=PatentSecurityAgreement#page120.tif  
source=PatentSecurityAgreement#page121.tif  
source=PatentSecurityAgreement#page122.tif  
source=PatentSecurityAgreement#page123.tif  
source=PatentSecurityAgreement#page124.tif  
source=PatentSecurityAgreement#page125.tif  
source=PatentSecurityAgreement#page126.tif  
source=PatentSecurityAgreement#page127.tif  
source=PatentSecurityAgreement#page128.tif  
source=PatentSecurityAgreement#page129.tif  
source=PatentSecurityAgreement#page130.tif  
source=PatentSecurityAgreement#page131.tif

## PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this "Patent Security Agreement") is made as of this 28 day of December, 2018, by and among Grantors listed on the signature pages hereof (collectively, jointly and severally, "Grantors" and each individually "Grantor"), and CRESTLINE DIRECT FINANCE, L.P., in its capacity as Collateral Agent for the Secured Parties (in such capacity, together with its successors, the "Collateral Agent").

### W I T N E S S E T H:

WHEREAS, pursuant to that certain Credit and Guaranty Agreement, dated as of the date hereof (as amended, restated, supplemented or otherwise modified from time to time, the "Credit Agreement"), by and among INVENTION HOLDING COMPANY, LLC, a Delaware limited liability company, ALLIED INVENTORS, LLC, a Delaware limited liability company ("Borrower" and CERTAIN SUBSIDIARIES OF BORROWER, as Guarantors, the Lenders party thereto from time to time (collectively, the "Lenders"), the Collateral Agent and CRESTLINE DIRECT FINANCE, L.P., as Administrative Agent and Sole Lead Arranger, the Secured Parties have agreed to make certain financial accommodations available to Company from time to time pursuant to the terms and conditions thereof;

WHEREAS, the Secured Parties are willing to make the financial accommodations to Company as provided for in the Credit Agreement, but only upon the condition, among others, that Grantors shall have executed and delivered to the Collateral Agent, for the benefit of the Secured Parties, that certain Pledge and Security Agreement dated as of December 28, 2018, by and among the Grantors, the other Grantors party thereto and the Collateral Agent (as amended, restated, supplemented or otherwise modified from time to time, the "Security Agreement"); and

WHEREAS, pursuant to the Security Agreement, Grantors are required to execute and deliver to the Collateral Agent, for the benefit of the Secured Parties, this Patent Security Agreement.

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby agrees as follows:

1. DEFINED TERMS. All capitalized terms used but not otherwise defined herein have the meanings given to them in the Security Agreement or, if not defined therein, in the Credit Agreement.

2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. Each Grantor hereby grants to the Collateral Agent, for the benefit of the Secured Parties, a continuing First Priority security interest in all of such Grantor's right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired (collectively, the "Patent Collateral"):

(a) all of its Patents, including those referred to on Schedule I hereto, and Patent Licenses, including those referred to on Schedule II hereto;

(b) all reissues, continuations or extensions of the foregoing;

(c) all products and Proceeds of the foregoing, including any claim by such Grantor against third parties for past, present or future (i) infringement or dilution of any Patent or Patent License or (ii) injury to the goodwill associated with any Patent or Patent License.

3. SECURITY FOR OBLIGATIONS. This Patent Security Agreement and the Lien created hereby secures the payment and performance of all the Secured Obligations, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Patent Security Agreement secures the payment of all amounts which constitute part of the Obligations and would be owed by Grantors, or any of them, to the Collateral Agent, the other Secured Parties or any of them, whether or not they are unenforceable or not allowable due to the filing of a petition in bankruptcy with respect to any Grantor.

4. SECURITY AGREEMENT. The security interests granted pursuant to this Patent Security Agreement are granted in conjunction with the security interests granted to the Collateral Agent, for the benefit of the Secured Parties, pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

5. AUTHORIZATION TO SUPPLEMENT. If any Grantor shall obtain rights to any new Patents or Patent Licenses, the provisions of this Patent Security Agreement shall automatically apply thereto. Grantors hereby authorize the Collateral Agent unilaterally to modify this Agreement by amending Schedule I or Schedule II, as applicable, to include any such new rights of Grantors. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend Schedule I or Schedule II, as the case may be, shall in any way affect, invalidate or detract from the Collateral Agent's continuing security interest in all Patent Collateral, whether or not listed on Schedule I or Schedule II, as applicable.

6. COUNTERPARTS. This Patent Security Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, but all such separate counterparts shall together constitute but one and the same instrument. In proving this Patent Security Agreement in any judicial proceedings, it shall not be necessary to produce or account for more than one such counterpart signed by the party against whom such enforcement is sought. Any signatures delivered by a party by facsimile or other electronic method of transmission shall be deemed an original signature hereto.

7. CONSTRUCTION. Unless the context of this Patent Security Agreement clearly requires otherwise, references to the plural include the singular, references to the singular include the plural, the terms "includes" and "including" are not limiting, and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or." The words "hereof", "herein", "hereby", "hereunder" and similar terms in this Patent Security Agreement refer to this Patent Security Agreement as a whole and not to any particular provision of this Patent Security Agreement. Section, Schedule, and Exhibit references herein are to this Patent Security Agreement unless otherwise specified.

[remainder of page intentionally left blank]

IN WITNESS WHEREOF, each Grantor has caused this Patent Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.


[signature on following page]

Signature Page to Patent Security Agreement

EMPIRE TECHNOLOGY DEVELOPMENT LLC

By: Allied Inventors, LLC its sole member

By: Allied Inventors Management, LLC, its  
Manager

By:   
Name: Thomas C. Kang  
Title: CEO

Signature Page to Patent Security Agreement]

**PATENT**  
**REEL: 048373 FRAME: 0298**

COBB\_029156

SCHEDULE I  
PATENTS

Attached.

SCHEDULE I TO PATENT SECURITY AGREEMENT

**PATENT**  
**REEL: 048373 FRAME: 0299**

COBB\_029157



Grantor	Country	Patent	Application Number	Application Filing Date	Status
Empire Technology Development LLC	United States of America	8978322	12/886370	Sep 20, 2010	Issued
Empire Technology Development LLC	Australia	2013231094	2013231094	Feb 25, 2010	Issued
Empire Technology Development LLC	Australia	2010200700	2010200700	Feb 25, 2010	Issued
Empire Technology Development LLC	Australia	2010200965	2010200965	Mar 12, 2010	Issued
Empire Technology Development LLC	United States of America	8955546	12/86403	Sep 20, 2010	Issued
Empire Technology Development LLC	United States of America	9228025	13/695276	Oct 29, 2012	Issued
Empire Technology Development LLC	United States of America	9267873	13/376544	Dec 6, 2011	Issued
Empire Technology Development LLC	United States of America	8946958	13/321784	Nov 21, 2011	Issued
Empire Technology Development LLC	United States of America	8920902	13/256215	Sep 12, 2011	Issued
Empire Technology Development LLC	Australia	2011370979	2011370979	Jun 14, 2011	Issued
Empire Technology Development LLC	China	ZL201180069549.0	201180069549.0	Mar 24, 2011	Issued
Empire Technology Development LLC	Japan	5749852	2014-501051	Mar 24, 2011	Issued
Empire Technology Development LLC	United States of America	9742842	13/511134	May 21, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1589801	10-2013-7031995	Sep 20, 2011	Issued
Empire Technology Development LLC	China	ZL201180073489.X	201180073489.X	Sep 20, 2011	Issued
Empire Technology Development LLC	United States of America	15/681,281		Aug 18, 2017	Published
Empire Technology Development LLC	United States of America	10059032	13/982251	Jul 26, 2013	Issued
Empire Technology Development LLC	United States of America	8904851	13/696689	Nov 7, 2012	Issued
Empire Technology Development LLC	China	ZL201180075390.3	201180075390.3	Dec 19, 2011	Issued
Empire Technology Development LLC	Japan	5965494	2014-545874	Dec 19, 2011	Issued
Empire Technology Development LLC	United States of America	9039803	13/699193	Nov 20, 2012	Issued
Empire Technology Development LLC	Australia	2012372793	2012372793	Mar 7, 2012	Issued
Empire Technology Development LLC	China	ZL201280072994.7	201280072994.7	Mar 7, 2012	Issued
Empire Technology Development LLC	United States of America	8987428	13/698776	Nov 19, 2012	Issued
Empire Technology Development LLC	United States of America	9790248	14/626591	Feb 19, 2015	Issued
Empire Technology Development LLC	United States of America	9006369	13/814866	Feb 7, 2013	Issued
Empire Technology Development LLC	United States of America	9157359	13/976440	Jun 26, 2013	Issued
Empire Technology Development LLC	United States of America	8920932	13/814844	Feb 7, 2013	Issued
Empire Technology Development LLC	China	ZL201280075898.8	201280075898.8	Jul 19, 2012	Issued
Empire Technology Development LLC	Germany	112012006712	112012006712.6	Jul 19, 2012	Issued
Empire Technology Development LLC	United States of America	13/988,010		May 16, 2013	Published
Empire Technology Development LLC	United States of America	9725867	14/375115	Sep 24, 2014	Issued
Empire Technology Development LLC	United States of America	9370321	13/993908	Jun 13, 2013	Issued
Empire Technology Development LLC	United States of America	9111154	13/811548	Jan 22, 2013	Issued
Empire Technology Development LLC	United States of America	8911858	13/879289	Apr 12, 2013	Issued

Empire Technology Development LLC	United States of America	9221960 14/548223	Nov 19, 2014	Issued
Empire Technology Development LLC	China	ZL201280076688.0	Oct 31, 2012	Issued
Empire Technology Development LLC	United States of America	9745699 14/440923	May 6, 2015	Issued
Empire Technology Development LLC	United States of America	9907540 14/362907	Jun 4, 2014	Issued
Empire Technology Development LLC	United States of America	9417122 13/879800	Apr 16, 2013	Issued
Empire Technology Development LLC	United States of America	9057677 13/825052	Mar 19, 2013	Issued
Empire Technology Development LLC	United States of America	9269034 13/816574	Feb 12, 2013	Issued
Empire Technology Development LLC	United States of America	14/009,763	Oct 3, 2013	Published
Empire Technology Development LLC	China	201380075580.4	Feb 15, 2013	Allowed
Empire Technology Development LLC	United States of America	9834522 14/768217	Aug 15, 2015	Issued
Empire Technology Development LLC	United States of America	9890130 14/768218	Aug 15, 2015	Issued
Empire Technology Development LLC	United States of America	15/584,363	May 2, 2017	Marked for Impairing
Empire Technology Development LLC	United States of America	15/584,518	May 2, 2017	Marked for Impairing
Empire Technology Development LLC	United States of America	10040007 14/648460	May 29, 2015	Issued
Empire Technology Development LLC	United States of America	14/770,580	Aug 26, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9663605 13/825858	Mar 25, 2013	Issued
Empire Technology Development LLC	United States of America	14/785,566	Oct 19, 2015	Marked for Impairing
Empire Technology Development LLC	European Patent Office	13882133.5	Apr 18, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9918466 14/760740	Jul 14, 2015	Issued
Empire Technology Development LLC	United States of America	9893287 14/651841	Jun 12, 2015	Issued
Empire Technology Development LLC	United States of America	9493275 13/876016	Mar 26, 2013	Issued
Empire Technology Development LLC	European Patent Office	13886810.4	Jun 13, 2013	Allowed
Empire Technology Development LLC	United States of America	9868683 14/898420	Dec 14, 2015	Issued
Empire Technology Development LLC	China	ZL 201380078517.6	Jun 13, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1806862	Jun 13, 2013	Issued
Empire Technology Development LLC	India	7872/CHENP/2015	Jun 13, 2013	Published
Empire Technology Development LLC	United States of America	15/031,710	Apr 22, 2016	Allowed
Empire Technology Development LLC	United States of America	9428666 14/778977	Sep 21, 2015	Issued
Empire Technology Development LLC	China	ZL201380076737.5	Mar 22, 2013	Issued
Empire Technology Development LLC	India	6408/CHENP/2015	Mar 22, 2013	Published
Empire Technology Development LLC	United States of America	9932319 14/894616	Nov 30, 2015	Issued
Empire Technology Development LLC	European Patent Office	3004070 13885964.0	May 28, 2013	Issued
Empire Technology Development LLC	United Kingdom	3004070 13885964.0	May 28, 2013	Issued
Empire Technology Development LLC	France	3004070 13885964.0	May 28, 2013	Issued
Empire Technology Development LLC	Germany	3004070 602013027979.9	May 28, 2013	Issued
Empire Technology Development LLC	European Patent Office	2994305 13884101.0	May 6, 2013	Issued

Empire Technology Development LLC	United Kingdom	2994305	13884101.0	May 6, 2013	Issued
Empire Technology Development LLC	France	2994305	13884101.0	May 6, 2013	Issued
Empire Technology Development LLC	Germany	2994305	602013031515.9	May 6, 2013	Issued
Empire Technology Development LLC	United States of America		14/889,713	Nov 6, 2015	Published
Empire Technology Development LLC	United States of America		9345908 13/978109	Jul 2, 2013	Issued
Empire Technology Development LLC	European Patent Office		13898847.2	Dec 2, 2013	Marked for Impairing
Empire Technology Development LLC	China	2013800820235	201380082023.5	Dec 2, 2013	Issued
Empire Technology Development LLC	United States of America		15/101,394	Jun 2, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America		9848884 14/125929	Jul 12, 2014	Issued
Empire Technology Development LLC	United States of America		14/894,814	Nov 30, 2015	Published
Empire Technology Development LLC	United States of America		9732292 14/767188	Aug 11, 2015	Issued
Empire Technology Development LLC	China	ZL201380075781.4	201380075781.4	Mar 20, 2013	Issued
Empire Technology Development LLC	China	ZL201380074837.4	201380074837.4	Apr 30, 2013	Issued
Empire Technology Development LLC	China	2013800809024	201380080902.4	Nov 12, 2013	Issued
Empire Technology Development LLC	United States of America		15/036,308	May 12, 2016	Pending
Empire Technology Development LLC	China	ZL2013800781921	201380078192.1	Jul 16, 2013	Issued
Empire Technology Development LLC	United States of America		14/905,729	Jan 15, 2016	Published
Empire Technology Development LLC	China	ZL2013800816649	201380081664.9	Dec 16, 2013	Issued
Empire Technology Development LLC	United States of America		9877727 14/001764	Aug 27, 2013	Issued
Empire Technology Development LLC	United States of America		9772431 14/889780	Nov 6, 2015	Issued
Empire Technology Development LLC	Japan	6073035	2016-512886	May 7, 2013	Issued
Empire Technology Development LLC	China		201380079174.5	Jun 28, 2013	Allowed
Empire Technology Development LLC	United States of America		10106570 14/901696	Dec 28, 2015	Issued
Empire Technology Development LLC	European Patent Office	3013367	13888488.7	Jun 28, 2013	Issued
Empire Technology Development LLC	United Kingdom	3013367	13888488.7	Jun 28, 2013	Issued
Empire Technology Development LLC	France	3013367	13888488.7	Jun 28, 2013	Issued
Empire Technology Development LLC	Germany	3013367	60201032444.1	Jun 28, 2013	Issued
Empire Technology Development LLC	United States of America		14/891,752	Nov 17, 2015	Published
Empire Technology Development LLC	United States of America		9535043 14/130956	Jan 6, 2014	Issued
Empire Technology Development LLC	United States of America		9228996 14/114738	Oct 29, 2013	Issued
Empire Technology Development LLC	United States of America		14/888,564	Nov 2, 2015	Marked for Impairing
Empire Technology Development LLC	China		201380076256.4	May 2, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America		9855149 14/488910	Sep 17, 2014	Issued
Empire Technology Development LLC	United States of America		9556134 14/894660	Nov 30, 2015	Issued
Empire Technology Development LLC	European Patent Office	3004069	13885836.0	May 28, 2013	Issued
Empire Technology Development LLC	United States of America		9840480 15/377666	Dec 13, 2016	Issued

Empire Technology Development LLC	United Kingdom	3004069	13885836.0	May 28, 2013	Issued
Empire Technology Development LLC	Germany	3004069	602013020190.0	May 28, 2013	Issued
Empire Technology Development LLC	France	3004069	13885836.0	May 28, 2013	Issued
Empire Technology Development LLC	United States of America		15/031,188	Apr 21, 2016	Marked for Impairing
Empire Technology Development LLC	European Patent Office	3060070	13896135.4	Oct 23, 2013	Issued
Empire Technology Development LLC	Germany	3060070	602013044086.7	Oct 23, 2013	Issued
Empire Technology Development LLC	United Kingdom	3060070	13896135.4	Oct 23, 2013	Issued
Empire Technology Development LLC	United States of America		15/032,040	Apr 25, 2016	Published
Empire Technology Development LLC	China		201380080427.0	Oct 23, 2013	Published
Empire Technology Development LLC	India		201617013082	Oct 23, 2013	Published
Empire Technology Development LLC	United States of America		14/426,161	Mar 5, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America		9955974 14/394408	Oct 14, 2014	Issued
Empire Technology Development LLC	United States of America		15/026,070	Jul 15, 2016	Published
Empire Technology Development LLC	European Patent Office		13894194.3	Sep 30, 2013	Published
Empire Technology Development LLC	United States of America		15/031,713	Apr 22, 2016	Published
Empire Technology Development LLC	European Patent Office		13898534.6	Dec 2, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America		10106494 15/101396	Jun 2, 2016	Issued
Empire Technology Development LLC	China	2013800813636	201380081363.6	Dec 2, 2013	Issued
Empire Technology Development LLC	United States of America		9945982 15/035371	May 9, 2016	Issued
Empire Technology Development LLC	United States of America		9246689 14/358708	May 15, 2014	Issued
Empire Technology Development LLC	United States of America		9559850 14/967395	Dec 14, 2015	Issued
Empire Technology Development LLC	United States of America		9870515 15/037329	May 18, 2016	Issued
Empire Technology Development LLC	United States of America		9895174 15/127086	Sep 19, 2016	Issued
Empire Technology Development LLC	European Patent Office		14886619.7	Mar 18, 2014	Published
Empire Technology Development LLC	United States of America		14/485,518	Sep 12, 2014	Published
Empire Technology Development LLC	United States of America		9366858 14/424414	Feb 26, 2015	Issued
Empire Technology Development LLC	United States of America		9325495 14/372294	Jul 15, 2014	Issued
Empire Technology Development LLC	United States of America		9512150 14/448938	Jul 31, 2014	Issued
Empire Technology Development LLC	United States of America		9724086 14/579994	Dec 22, 2014	Issued
Empire Technology Development LLC	United States of America		9746622 14/778601	Sep 20, 2015	Issued
Empire Technology Development LLC	United States of America		9891393 14/340511	Jul 24, 2014	Issued
Empire Technology Development LLC	United States of America		14/610,304	Jan 30, 2015	Published
Empire Technology Development LLC	China		201610064489.8	Jan 29, 2016	Published
Empire Technology Development LLC	United States of America		15/100,989	Jun 2, 2016	Published
Empire Technology Development LLC	United States of America		9735543 14/466684	Aug 22, 2014	Issued
Empire Technology Development LLC	United States of America		9696494 15/112151	Jul 15, 2016	Issued

Empire Technology Development LLC	United States of America	9829663 15/101009	Jun 2, 2016	Issued
Empire Technology Development LLC	United States of America	9603015 14/399115	Nov 5, 2014	Issued
Empire Technology Development LLC	United States of America	9979708 15/462263	Mar 17, 2017	Issued
Empire Technology Development LLC	United States of America	9502147 14/458202	Aug 12, 2014	Issued
Empire Technology Development LLC	United States of America	9263653 14/278505	May 15, 2014	Issued
Empire Technology Development LLC	United States of America	9917032 14/449074	Jul 31, 2014	Issued
Empire Technology Development LLC	United States of America	9994597 15/306471	Oct 24, 2016	Issued
Empire Technology Development LLC	United States of America	14/449,571	Aug 1, 2014	Published
Empire Technology Development LLC	Taiwan R.O.C.	104124731	Jul 30, 2015	Published
Empire Technology Development LLC	Republic of Korea	10-2017-7005801	Aug 3, 2015	Published
Empire Technology Development LLC	China	201580051811.7	Aug 3, 2015	Published
Empire Technology Development LLC	United States of America	9392443 14/448267	Jul 31, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1745778	May 29, 2015	Issued
Empire Technology Development LLC	United States of America	9004998 13/696062	Nov 2, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1586387	Jun 20, 2011	Issued
Empire Technology Development LLC	Japan	5726373	Jun 20, 2011	Issued
Empire Technology Development LLC	United States of America	9225853 13/505723	May 2, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1520569	Aug 17, 2011	Issued
Empire Technology Development LLC	China	ZL201180072902.0	Aug 17, 2011	Issued
Empire Technology Development LLC	Japan	5851609	Aug 17, 2011	Issued
Empire Technology Development LLC	United States of America	8977129 13/805761	Dec 20, 2012	Issued
Empire Technology Development LLC	United States of America	9124958 13/805775	Dec 20, 2012	Issued
Empire Technology Development LLC	China	ZL201280070339.8	Feb 24, 2012	Issued
Empire Technology Development LLC	Japan	6130403	Feb 24, 2012	Issued
Empire Technology Development LLC	United States of America	13/636,778	Sep 24, 2012	Marked for Impairing
Empire Technology Development LLC	United States of America	9491425 13/825516	Mar 21, 2013	Issued
Empire Technology Development LLC	China	ZL201280074587.X	Jul 10, 2012	Issued
Empire Technology Development LLC	United States of America	10085879 13/637350	Sep 25, 2012	Issued
Empire Technology Development LLC	United States of America	8868474 13/997886	Jun 25, 2013	Issued
Empire Technology Development LLC	China	ZL201280075098.6	Aug 1, 2012	Issued
Empire Technology Development LLC	United States of America	9032072 13/814851	Feb 7, 2013	Issued
Empire Technology Development LLC	China	ZL201280075197.4	Aug 8, 2012	Issued
Empire Technology Development LLC	United States of America	9413858 14/681037	Apr 7, 2015	Issued
Empire Technology Development LLC	European Patent Office	13895694.1	Oct 16, 2013	Allowed
Empire Technology Development LLC	United States of America	9986580 15/024040	Mar 23, 2016	Issued
Empire Technology Development LLC	China	201380080269.9	Oct 16, 2013	Published

Empire Technology Development LLC	United States of America	15/122,094	Aug 26, 2016	Published
Empire Technology Development LLC	United States of America	9734889 14/579239	Dec 22, 2014	Issued
Empire Technology Development LLC	United States of America	10044496 15/101935	Jun 6, 2016	Issued
Empire Technology Development LLC	United States of America	9256470 14/447216	Jul 30, 2014	Issued
Empire Technology Development LLC	United States of America	9996973 14/430203	Mar 20, 2015	Issued
Empire Technology Development LLC	United States of America	14/300,846	Jun 10, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	10007790 14/298726	Jun 6, 2014	Issued
Empire Technology Development LLC	United States of America	9813238 14/498312	Sep 26, 2014	Issued
Empire Technology Development LLC	United States of America	15/790,864	Oct 23, 2017	Marked for Impairing
Empire Technology Development LLC	United States of America	9710330 14/515214	Oct 15, 2014	Issued
Empire Technology Development LLC	United States of America	15/643,993	Jul 7, 2017	Published
Empire Technology Development LLC	United States of America	9744870 14/538615	Nov 11, 2014	Issued
Empire Technology Development LLC	United States of America	15/687,695	Aug 28, 2017	Published
Empire Technology Development LLC	United States of America	10,158,969 15/461,715	Mar 17, 2017	Allowed
Empire Technology Development LLC	United States of America	9602955 14/717498	May 20, 2015	Issued
Empire Technology Development LLC	United States of America	16/194,254	Nov 16, 2018	Pending
Empire Technology Development LLC	China	201680028979.0	May 5, 2016	Published
Empire Technology Development LLC	China	ZL200810041373.8 200810041373.8	Aug 4, 2008	Issued
Empire Technology Development LLC	United States of America	8555953 12/535542	Aug 4, 2009	Issued
Empire Technology Development LLC	China	ZL200810041372.3 200810041372.3	Aug 4, 2008	Issued
Empire Technology Development LLC	United States of America	8944150 12/535530	Aug 4, 2009	Issued
Empire Technology Development LLC	United States of America	8873801 13/380819	Dec 24, 2011	Issued
Empire Technology Development LLC	China	ZL200910167463.6 200910167463.6	Aug 25, 2009	Issued
Empire Technology Development LLC	United States of America	8902111 12/707510	Feb 17, 2010	Issued
Empire Technology Development LLC	China	ZL200910167460.2 200910167460.2	Aug 25, 2009	Issued
Empire Technology Development LLC	United States of America	8380239 12/707523	Feb 17, 2010	Issued
Empire Technology Development LLC	United States of America	8480574 12/770120	Apr 29, 2010	Issued
Empire Technology Development LLC	United States of America	9254159 12/554702	Sep 4, 2009	Issued
Empire Technology Development LLC	United States of America	9375226 12/727935	Mar 19, 2010	Issued
Empire Technology Development LLC	United States of America	8671293 13/878238	Apr 8, 2013	Issued
Empire Technology Development LLC	China	ZL201180062034.8 201180062034.8	Sep 21, 2011	Issued
Empire Technology Development LLC	Japan	5695766 2013-550738	Sep 21, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1529016 10-2014-7007447	Sep 21, 2011	Issued
Empire Technology Development LLC	United States of America	8548574 12/835277	Sep 21, 2011	Issued
Empire Technology Development LLC	United States of America	8686850 12/707496	Jul 13, 2010	Issued
Empire Technology Development LLC	United States of America	8648731 13/132080	Feb 17, 2010	Issued
Empire Technology Development LLC	United States of America		Jun 1, 2011	Issued



Empire Technology Development LLC	Republic of Korea	10-1433497	10-2012-7025738	Jun 9, 2010	Issued
Empire Technology Development LLC	China	ZL201080064557.1	201080064557.1	Jun 9, 2010	Issued
Empire Technology Development LLC	United States of America	8174934	12/844839	Jul 28, 2010	Issued
Empire Technology Development LLC	Japan	5250089	2011-163783	Jul 27, 2011	Issued
Empire Technology Development LLC	United States of America	8232859	12/539338	Aug 11, 2009	Issued
Empire Technology Development LLC	Japan	5525217	2009-210240	Sep 11, 2009	Issued
Empire Technology Development LLC	China	ZL201080032744.1	201080032744.1	May 20, 2010	Issued
Empire Technology Development LLC	Japan	5736474	2014-025825	Feb 13, 2014	Issued
Empire Technology Development LLC	Germany		112010003260.2	May 20, 2010	Published
Empire Technology Development LLC	United States of America	8863445	13/202988	Aug 24, 2011	Issued
Empire Technology Development LLC	United States of America	9268134	13/148724	Aug 10, 2011	Issued
Empire Technology Development LLC	Japan	5767705	2013-524331	Aug 27, 2010	Issued
Empire Technology Development LLC	United States of America	9551876	14/985782	Dec 31, 2015	Issued
Empire Technology Development LLC	United States of America	9020618	13/119896	Mar 18, 2011	Issued
Empire Technology Development LLC	United States of America	9539087	13/123440	Apr 8, 2011	Issued
Empire Technology Development LLC	European Patent Office	2563273	10850479.6	Apr 28, 2010	Issued
Empire Technology Development LLC	Germany	2563273	602010044737.5	Apr 28, 2010	Issued
Empire Technology Development LLC	France	2563273	10850479.6	Apr 28, 2010	Issued
Empire Technology Development LLC	United Kingdom	2563273	10850479.6	Apr 28, 2010	Issued
Empire Technology Development LLC	China	ZL201080066902.5	201080066902.5	May 28, 2010	Issued
Empire Technology Development LLC	Japan	5756516	2013-511502	May 28, 2010	Issued
Empire Technology Development LLC	United States of America	8917871	13/129796	May 17, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1502930	10-2013-7001366	Jun 18, 2010	Issued
Empire Technology Development LLC	Japan	5629823	2013-514518	Jun 18, 2010	Issued
Empire Technology Development LLC	United States of America	9742558	14/532475	Nov 4, 2014	Issued
Empire Technology Development LLC	United States of America	8160731	12/543492	Aug 18, 2009	Issued
Empire Technology Development LLC	United States of America	7958970	12/553091	Sep 2, 2009	Issued
Empire Technology Development LLC	Japan	5394866	2009-213875	Sep 16, 2009	Issued
Empire Technology Development LLC	United States of America	8874405	12/943219	Nov 10, 2010	Issued
Empire Technology Development LLC	United States of America	8723691	12/761415	Apr 16, 2010	Issued
Empire Technology Development LLC	United States of America	8279060	12/538884	Aug 11, 2009	Issued
Empire Technology Development LLC	United States of America	8253554	12/538881	Aug 11, 2009	Issued
Empire Technology Development LLC	United States of America	8465020	13/263841	Oct 11, 2011	Issued
Empire Technology Development LLC	United States of America	8893858	13/141327	Jun 22, 2011	Issued
Empire Technology Development LLC	United States of America	8483941	12/849828	Aug 4, 2010	Issued
Empire Technology Development LLC	United States of America	8996439	13/203969	Aug 30, 2011	Issued

Empire Technology Development LLC	China	ZL201080066555.6	201080066555.6	May 5, 2010	Issued
Empire Technology Development LLC	India		9118/CHENP/2012	May 5, 2010	Published
Empire Technology Development LLC	United States of America	9055976	13/319148	Nov 7, 2011	Issued
Empire Technology Development LLC	United States of America	8314503	12/709060	Feb 19, 2010	Issued
Empire Technology Development LLC	United States of America	9136598	13/129879	May 18, 2011	Issued
Empire Technology Development LLC	China	ZL201080068229.9	201080068229.9	Jun 18, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1436341	10-2013-7001064	Jun 18, 2010	Issued
Empire Technology Development LLC	Japan	5575983	2013-514519	Jun 18, 2010	Issued
Empire Technology Development LLC	United States of America	8887169	13/202226	Aug 18, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1436339	10-2012-7031284	Sep 15, 2010	Issued
Empire Technology Development LLC	United States of America	8504111	13/125925	Apr 25, 2011	Issued
Empire Technology Development LLC	China	ZL201080067605.2	201080067605.2	Apr 23, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1442051	10-2012-7030725	Apr 23, 2010	Issued
Empire Technology Development LLC	United States of America	9170331	13/260753	Sep 28, 2011	Issued
Empire Technology Development LLC	China	ZL201080068055.6	201080068055.6	Oct 11, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1457019	10-2012-7034432	Oct 11, 2010	Issued
Empire Technology Development LLC	Japan	5639275	2013-529526	Oct 11, 2010	Issued
Empire Technology Development LLC	United States of America	8844223	13/203837	Aug 30, 2011	Issued
Empire Technology Development LLC	China	ZL201080067576.X	201080067576.X	Aug 24, 2010	Issued
Empire Technology Development LLC	United States of America	9038339	14/487112	Sep 16, 2014	Issued
Empire Technology Development LLC	China	ZL201510067675.2	201510067675.2	Aug 24, 2010	Issued
Empire Technology Development LLC	United States of America	9192812	13/255237	Sep 7, 2011	Issued
Empire Technology Development LLC	China	8566363	13/376804	Dec 7, 2011	Issued
Empire Technology Development LLC	China	ZL201180068468.9	201180068468.9	Feb 25, 2011	Issued
Empire Technology Development LLC	Japan	5730413	2013-554774	Feb 25, 2011	Issued
Empire Technology Development LLC	United States of America	8579543	13/254970	Sep 6, 2011	Issued
Empire Technology Development LLC	China	ZL201080067537.X	201080067537.X	Aug 19, 2010	Issued
Empire Technology Development LLC	United States of America	8662789	14/039854	Sep 27, 2013	Issued
Empire Technology Development LLC	United States of America	9245049	13/496773	Mar 16, 2012	Issued
Empire Technology Development LLC	China	ZL201180067822.6	201180067822.6	Feb 16, 2011	Issued
Empire Technology Development LLC	Japan	5651789	2013-553760	Feb 16, 2011	Issued
Empire Technology Development LLC	United States of America		13/203,977	Aug 30, 2011	Published
Empire Technology Development LLC	United States of America		14/368,216	Nov 26, 2014	Published
Empire Technology Development LLC	China	ZL201010214848.6	201010214848.6	Jun 29, 2010	Issued
Empire Technology Development LLC	United States of America	8809766	13/807148	Dec 27, 2012	Issued
Empire Technology Development LLC	Japan	5654674	2013-516979	Jun 28, 2011	Issued



Empire Technology Development LLC	China	ZL201180057950.2	201180057950.2	Jan 20, 2011	Issued
Empire Technology Development LLC	United States of America	8903325	13/634199	Sep 11, 2012	Issued
Empire Technology Development LLC	China	ZL201180068228.9	201180068228.9	Feb 21, 2011	Issued
Empire Technology Development LLC	European Patent Office	2679067	11859429.0	Feb 21, 2011	Issued
Empire Technology Development LLC	Japan	6002157	2013-553762	Feb 21, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1472702	10-2013-7021970	Feb 21, 2011	Issued
Empire Technology Development LLC	France	2679067	11859429.0	Feb 21, 2011	Issued
Empire Technology Development LLC	Germany	2679067	11859429.0	Feb 21, 2011	Issued
Empire Technology Development LLC	United Kingdom	2679067	11859429.0	Feb 21, 2011	Issued
Empire Technology Development LLC	United States of America	9185005	13/641701	Oct 17, 2012	Issued
Empire Technology Development LLC	China	ZL201180067264.3	201180067264.3	Feb 10, 2011	Issued
Empire Technology Development LLC	Japan	5688475	2013-552813	Feb 10, 2011	Issued
Empire Technology Development LLC	United States of America	9407680	14/864920	Sep 25, 2015	Issued
Empire Technology Development LLC	European Patent Office	11858142.0		Feb 10, 2011	Published
Empire Technology Development LLC	United States of America	8850021	13/265778	Oct 21, 2011	Issued
Empire Technology Development LLC	China	ZL201080070346.9	201080070346.9	Dec 17, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1540868	10-2013-7007514	Dec 17, 2010	Issued
Empire Technology Development LLC	Saudi Arabia	112330461		Apr 15, 2012	Allowed
Empire Technology Development LLC	United States of America	9338667	14/006291	Sep 19, 2013	Issued
Empire Technology Development LLC	United States of America	9210393	13/701833	Dec 4, 2012	Issued
Empire Technology Development LLC	United States of America	8666310	13/576929	Aug 2, 2012	Issued
Empire Technology Development LLC	China	ZL201180072087.8	201180072087.8	May 4, 2011	Issued
Empire Technology Development LLC	European Patent Office	2705633	11864698.3	May 4, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1466814	10-2013-7032200	May 4, 2011	Issued
Empire Technology Development LLC	Japan	5769876	2014-508664	May 4, 2011	Issued
Empire Technology Development LLC	United States of America	8971794	14/160199	Jan 21, 2014	Issued
Empire Technology Development LLC	Germany	2705633	602011024197.4	May 4, 2011	Issued
Empire Technology Development LLC	France	2705633	11864698.3	May 4, 2011	Issued
Empire Technology Development LLC	United Kingdom	2705633	11864698.3	May 4, 2011	Issued
Empire Technology Development LLC	United States of America	8597405	13/574158	Jul 19, 2012	Issued
Empire Technology Development LLC	China	ZL201180072464.8	201180072464.8	Aug 23, 2011	Issued
Empire Technology Development LLC	Japan	5820071	2014-524247	Aug 23, 2011	Issued
Empire Technology Development LLC	United States of America	8891347	13/522422	Jul 16, 2012	Issued
Empire Technology Development LLC	China	ZL201180072559.X	201180072559.X	Jul 28, 2011	Issued
Empire Technology Development LLC	Japan	5834141	2014-521903	Jul 28, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1588986	10-2014-7002182	Jul 28, 2011	Issued

Empire Technology Development LLC	European Patent Office	11869766.3	Jul 28, 2011	Published
Empire Technology Development LLC	United States of America	8958839 13/318391	Nov 1, 2011	Issued
Empire Technology Development LLC	China	ZL201180072148.0	May 9, 2011	Issued
Empire Technology Development LLC	European Patent Office	2708076	May 9, 2011	Issued
Empire Technology Development LLC	Japan	5793238	May 9, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1609037	May 9, 2011	Issued
Empire Technology Development LLC	United Kingdom	EP2708076	May 9, 2011	Issued
Empire Technology Development LLC	Germany	EP2708076	May 9, 2011	Issued
Empire Technology Development LLC	France	EP2708076	May 9, 2011	Issued
Empire Technology Development LLC	United States of America	9361360 13/814940	Feb 8, 2013	Issued
Empire Technology Development LLC	United States of America	8837432 13/497255	Mar 21, 2012	Issued
Empire Technology Development LLC	Japan	5680790	Apr 15, 2011	Issued
Empire Technology Development LLC	China	ZL201180071635.5	Apr 15, 2011	Issued
Empire Technology Development LLC	European Patent Office	2697912	Apr 15, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1489290	Apr 15, 2011	Issued
Empire Technology Development LLC	United Kingdom	2697912	Apr 15, 2011	Issued
Empire Technology Development LLC	Germany	2697912	Apr 15, 2011	Issued
Empire Technology Development LLC	France	2697912	Apr 15, 2011	Issued
Empire Technology Development LLC	United States of America	9754794 14/425326	Jun 15, 2015	Issued
Empire Technology Development LLC	United States of America	9878302 14/428186	Mar 13, 2015	Issued
Empire Technology Development LLC	United States of America	14/410,902	Dec 23, 2014	Published
Empire Technology Development LLC	United States of America	8675598 13/322285	Nov 23, 2011	Issued
Empire Technology Development LLC	United States of America	8849296 13/514284	Jun 7, 2012	Issued
Empire Technology Development LLC	China	ZL201180071947.6	Jun 27, 2011	Issued
Empire Technology Development LLC	European Patent Office	2724590	Jun 27, 2011	Issued
Empire Technology Development LLC	Japan	5774783	Jun 27, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1482901	Jun 27, 2011	Issued
Empire Technology Development LLC	Germany	2724590	Jun 27, 2011	Issued
Empire Technology Development LLC	France	2724590	Jun 27, 2011	Issued
Empire Technology Development LLC	United Kingdom	2724590	Jun 27, 2011	Issued
Empire Technology Development LLC	China	ZL201180074004.9	Nov 2, 2011	Issued
Empire Technology Development LLC	Japan	5970551	Nov 2, 2011	Issued
Empire Technology Development LLC	United States of America	9145336 14/352613	Apr 17, 2014	Issued
Empire Technology Development LLC	Japan	5671133	Apr 13, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1542124	Apr 13, 2011	Issued
Empire Technology Development LLC	United States of America	13/254,808	Sep 2, 2011	Marked for Impairing

Empire Technology Development LLC	United States of America	8600346 13/814938	Feb 8, 2013	Issued
Empire Technology Development LLC	China	ZL201180072121.1	Jul 6, 2011	Issued
Empire Technology Development LLC	European Patent Office	2730114	Jul 6, 2011	Issued
Empire Technology Development LLC	Japan	5843960	Jul 6, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1414415	Jul 6, 2011	Issued
Empire Technology Development LLC	France	2730114	Jul 6, 2011	Issued
Empire Technology Development LLC	Germany	2730114	Jul 6, 2011	Issued
Empire Technology Development LLC	United Kingdom	2730114	Jul 6, 2011	Issued
Empire Technology Development LLC	United States of America	8738561 13/818305	Feb 22, 2013	Issued
Empire Technology Development LLC	China	ZL201180072639.5	Jul 29, 2011	Issued
Empire Technology Development LLC	Japan	5646118	Jul 29, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1568623	Jul 29, 2011	Issued
Empire Technology Development LLC	United States of America	8538339 13/576916	Aug 2, 2012	Issued
Empire Technology Development LLC	United States of America	9048982 14/028384	Sep 16, 2013	Issued
Empire Technology Development LLC	China	ZL201180072100.X	May 4, 2011	Issued
Empire Technology Development LLC	European Patent Office	2705716	May 4, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1521375	May 4, 2011	Issued
Empire Technology Development LLC	Japan	5756564	May 4, 2011	Issued
Empire Technology Development LLC	Germany	2705716	May 4, 2011	Issued
Empire Technology Development LLC	France	2705716	May 4, 2011	Issued
Empire Technology Development LLC	United Kingdom	2705716	May 4, 2011	Issued
Empire Technology Development LLC	United States of America	9285349 14/441396	May 7, 2015	Issued
Empire Technology Development LLC	United States of America	9556076 14/355826	May 1, 2014	Issued
Empire Technology Development LLC	United States of America	9382143 14/241004	Feb 25, 2014	Issued
Empire Technology Development LLC	United States of America	8835643 13/878947	Apr 11, 2013	Issued
Empire Technology Development LLC	United States of America	8840773 13/579927	Aug 18, 2012	Issued
Empire Technology Development LLC	China	ZL201180071172.2	Jun 17, 2011	Issued
Empire Technology Development LLC	Japan	5837681	Jun 17, 2011	Issued
Empire Technology Development LLC	United States of America	8644652 13/510925	May 18, 2012	Issued
Empire Technology Development LLC	China	ZL201180071550.7	Jun 29, 2011	Issued
Empire Technology Development LLC	Japan	5707536	Jun 29, 2011	Issued
Empire Technology Development LLC	United States of America	8867392 13/508985	May 9, 2012	Issued
Empire Technology Development LLC	United States of America	8863821 13/391573	Feb 21, 2012	Issued
Empire Technology Development LLC	United States of America	9568253 14/338631	Jul 23, 2014	Issued
Empire Technology Development LLC	United States of America	9318274 14/117097	Nov 12, 2013	Issued
Empire Technology Development LLC	United States of America	8645751 13/643874	Oct 26, 2012	Issued

Empire Technology Development LLC	United States of America	9223652	14/146354	Jan 2, 2014	Issued
Empire Technology Development LLC	Japan	5993018	2014-539202	Nov 2, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1566467	10-2014-7011826	Nov 2, 2011	Issued
Empire Technology Development LLC	China	201180072276.5	201180072276.5	Jul 13, 2011	Issued
Empire Technology Development LLC	European Patent Office	2732667	11869237.5	Jul 13, 2011	Issued
Empire Technology Development LLC	Japan	6120840	2014-519372	Jul 13, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1625108	10-2014-7003289	Jul 13, 2011	Issued
Empire Technology Development LLC	United Kingdom	2732667	11869237.5	Jul 13, 2011	Issued
Empire Technology Development LLC	Germany	2732667	602011046592.9	Jul 13, 2011	Issued
Empire Technology Development LLC	United States of America	14/007,324		Sep 24, 2013	Published
Empire Technology Development LLC	United States of America	8694023	13/637322	Sep 25, 2012	Issued
Empire Technology Development LLC	United States of America	9312976	13/817113	Feb 14, 2013	Issued
Empire Technology Development LLC	United States of America	9352224	13/499746	Apr 2, 2012	Issued
Empire Technology Development LLC	China	ZL 201180074072.5	201180074072.5	Oct 11, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1616291	10-2014-7009428	Oct 11, 2011	Issued
Empire Technology Development LLC	United States of America	9225770	13/817694	Feb 19, 2013	Issued
Empire Technology Development LLC	China	10-1632817	10-2014-7021717	Mar 9, 2012	Issued
Empire Technology Development LLC	United States of America	ZL201280067977.4	201280067977.4	Mar 9, 2012	Issued
Empire Technology Development LLC	United States of America	9882917	14/957775	Dec 3, 2015	Issued
Empire Technology Development LLC	Republic of Korea	9363326	13/977918	Jul 1, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1579024	10-2014-7017798	Feb 6, 2012	Issued
Empire Technology Development LLC	Japan	5781242	2014-555911	Feb 6, 2012	Issued
Empire Technology Development LLC	United States of America	9904738	15/140752	Apr 28, 2016	Issued
Empire Technology Development LLC	Republic of Korea	10-1765996	10-2014-7014995	Feb 16, 2012	Issued
Empire Technology Development LLC	United States of America	14/430,917		Mar 25, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9324024	13/810815	Jan 17, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1563832	10-2014-7014739	Feb 3, 2012	Issued
Empire Technology Development LLC	China	ZL201280068832.6	201280068832.6	Feb 3, 2012	Issued
Empire Technology Development LLC	Japan	5916260	2014-555054	Feb 3, 2012	Issued
Empire Technology Development LLC	United States of America	15/051,857		Feb 24, 2016	Published
Empire Technology Development LLC	United States of America	9325389	14/357854	May 13, 2014	Issued
Empire Technology Development LLC	European Patent Office	3005600	13885681.0	May 27, 2013	Issued
Empire Technology Development LLC	Japan	6178500	2016-514238	May 27, 2013	Issued
Empire Technology Development LLC	France	3005600	13885681.0	May 27, 2013	Issued
Empire Technology Development LLC	Germany	3005600	602013042937.5	May 27, 2013	Issued
Empire Technology Development LLC	United Kingdom	3005600	13885681.0	May 27, 2013	Issued

Empire Technology Development LLC	China	201380076651.2	May 27, 2013	Published
Empire Technology Development LLC	United States of America	9246528 14/349001	Apr 1, 2014	Issued
Empire Technology Development LLC	China	201380082091.1	Jan 11, 2013	Published
Empire Technology Development LLC	Germany	112013006410.3	Jan 11, 2013	Published
Empire Technology Development LLC	United States of America	9197311 14/124094	Dec 5, 2013	Issued
Empire Technology Development LLC	United States of America	9796002 13/817357	Feb 15, 2013	Issued
Empire Technology Development LLC	United States of America	9771265 14/408928	Dec 17, 2014	Issued
Empire Technology Development LLC	United States of America	9635134 14/000377	Aug 19, 2013	Issued
Empire Technology Development LLC	China	201280074487.7	Jul 3, 2012	Published
Empire Technology Development LLC	United States of America	9729270 14/239642	Feb 19, 2014	Issued
Empire Technology Development LLC	United States of America	9474037 14/130017	Dec 30, 2013	Issued
Empire Technology Development LLC	China	201280078029.0	Oct 29, 2012	Published
Empire Technology Development LLC	United States of America	9588984 14/114154	Oct 25, 2013	Issued
Empire Technology Development LLC	China	201280077564.4	Dec 6, 2012	Published
Empire Technology Development LLC	United States of America	15/449,815	Mar 3, 2017	Published
Empire Technology Development LLC	United States of America	9003502 13/819715	Feb 28, 2013	Issued
Empire Technology Development LLC	United States of America	9025446 14/004371	Sep 10, 2013	Issued
Empire Technology Development LLC	United States of America	9118677 14/007547	Sep 25, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1617116 10-2014-7028788	May 10, 2012	Issued
Empire Technology Development LLC	China	ZL201280073080.2	May 10, 2012	Issued
Empire Technology Development LLC	United States of America	9792313 14/114087	Oct 25, 2013	Issued
Empire Technology Development LLC	China	ZL201280075100.X	Jul 31, 2012	Issued
Empire Technology Development LLC	United States of America	9509632 13/876558	Mar 28, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1619686 10-2014-7029653	Apr 25, 2012	Issued
Empire Technology Development LLC	China	ZL201280075352.2	Aug 16, 2012	Issued
Empire Technology Development LLC	United States of America	14/004,850	Sep 12, 2013	Published
Empire Technology Development LLC	United States of America	8755465 13/990429	May 30, 2013	Issued
Empire Technology Development LLC	China	ZL201280073575.5	May 31, 2012	Issued
Empire Technology Development LLC	European Patent Office	2856660 12877989.9	May 31, 2012	Issued
Empire Technology Development LLC	United Kingdom	2856660 12877989.9	May 31, 2012	Issued
Empire Technology Development LLC	France	2856660 12877989.9	May 31, 2012	Issued
Empire Technology Development LLC	Germany	2856660 602012038550.2	May 31, 2012	Issued
Empire Technology Development LLC	United States of America	9484994 14/408563	Dec 16, 2014	Issued
Empire Technology Development LLC	China	201280074071.5	Jun 18, 2012	Issued
Empire Technology Development LLC	European Patent Office	2862286 12879423.7	Jun 18, 2012	Issued
Empire Technology Development LLC	United Kingdom	2862286 12879423.7	Jun 18, 2012	Issued

Empire Technology Development LLC	Germany	2862286	602012037457.8	Jun 18, 2012	Issued
Empire Technology Development LLC	France	2862286	12879423.7	Jun 18, 2012	Issued
Empire Technology Development LLC	United States of America	9420546	14/239635	Feb 19, 2014	Issued
Empire Technology Development LLC	United States of America	9286571	13/879799	Apr 16, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1617987	10-2014-7027254	Apr 1, 2012	Issued
Empire Technology Development LLC	United States of America	9525449	14/390624	Oct 3, 2014	Issued
Empire Technology Development LLC	United States of America	9858775	14/907401	Jan 25, 2016	Issued
Empire Technology Development LLC	United States of America	14/126,382		Dec 13, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9282498	13/989656	May 24, 2013	Issued
Empire Technology Development LLC	Japan	6006415	2015-523360	Jul 24, 2012	Issued
Empire Technology Development LLC	European Patent Office	2878155	12881799.6	Jul 24, 2012	Issued
Empire Technology Development LLC	Germany	2878155	602012036485.8	Jul 24, 2012	Issued
Empire Technology Development LLC	France	2878155	12881799.6	Jul 24, 2012	Issued
Empire Technology Development LLC	United Kingdom	2878155	12881799.6	Jul 24, 2012	Issued
Empire Technology Development LLC	United States of America	9320041	14/006309	Sep 19, 2013	Issued
Empire Technology Development LLC	United States of America	10033492	15/060993	Mar 4, 2016	Issued
Empire Technology Development LLC	United States of America	16/039,468		Jul 19, 2018	Pending
Empire Technology Development LLC	China	201280077102.2		Oct 12, 2012	Published
Empire Technology Development LLC	United States of America	9391763	14/403710	Nov 25, 2014	Issued
Empire Technology Development LLC	China	ZL201380073907.4	201380073907.4	Feb 28, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1755967	10-2015-7023408	Feb 28, 2013	Issued
Empire Technology Development LLC	Germany	9949283	14/127192	Feb 28, 2013	Published
Empire Technology Development LLC	United States of America	15/924,535		Dec 18, 2013	Issued
Empire Technology Development LLC	United States of America	201380082092.6		Mar 19, 2018	Pending
Empire Technology Development LLC	China	112013006745.5		Jan 11, 2013	Published
Empire Technology Development LLC	Germany	112013006400.6		Jan 11, 2013	Published
Empire Technology Development LLC	United States of America	9693359	14/357867	May 13, 2014	Issued
Empire Technology Development LLC	United States of America	10085227	14/763919	Jul 28, 2015	Issued
Empire Technology Development LLC	Germany	112013006517.7		Jan 28, 2013	Published
Empire Technology Development LLC	United States of America	14/441,468		May 7, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9600771	13/985761	Aug 15, 2013	Issued
Empire Technology Development LLC	China	ZL201280076743.6	201280076743.6	Oct 31, 2012	Issued
Empire Technology Development LLC	United States of America	9330359	14/122971	Nov 27, 2013	Issued
Empire Technology Development LLC	United States of America	15/056,055		Feb 29, 2016	Published
Empire Technology Development LLC	United States of America	14/765,395		Aug 3, 2015	Published
Empire Technology Development LLC	United States of America	14/647,603		May 27, 2015	Marked for Impairing



Empire Technology Development LLC	United States of America	9684672 14/358770	May 16, 2014	Issued
Empire Technology Development LLC	United States of America	9760876 13/855590	Apr 2, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-2013-0069081	Jun 17, 2013	Issued
Empire Technology Development LLC	United States of America	9403748 14/652203	Jun 15, 2015	Issued
Empire Technology Development LLC	United States of America	9740295 14/422287	Feb 18, 2015	Issued
Empire Technology Development LLC	United States of America	15/657,465	Jul 24, 2017	Published
Empire Technology Development LLC	United States of America	14/421,309	Feb 12, 2015	Allowed
Empire Technology Development LLC	United States of America	9280792 14/006310	Sep 19, 2013	Issued
Empire Technology Development LLC	China	ZL201380077088.0	May 28, 2013	Issued
Empire Technology Development LLC	United States of America	9444891 14/363075	Jun 5, 2014	Issued
Empire Technology Development LLC	China	2013800779777	Jul 1, 2013	Issued
Empire Technology Development LLC	Japan	6216048	Jul 1, 2013	Issued
Empire Technology Development LLC	United States of America	9253776 14/358990	May 16, 2014	Issued
Empire Technology Development LLC	China	ZL201380077139.X	Jun 7, 2013	Issued
Empire Technology Development LLC	Japan	5998295	Jun 7, 2013	Issued
Empire Technology Development LLC	Germany	112013007144.4	Jun 7, 2013	Issued
Empire Technology Development LLC	United States of America	9455868 14/365324	Jun 13, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1848814	Jul 1, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1764994	May 31, 2013	Issued
Empire Technology Development LLC	United States of America	14/410,056	Dec 19, 2014	Published
Empire Technology Development LLC	Republic of Korea	10-1786987	Apr 19, 2013	Issued
Empire Technology Development LLC	United States of America	14/412,412	Dec 31, 2014	Published
Empire Technology Development LLC	United States of America	14/647,655	May 27, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9390164 14/408753	Dec 17, 2014	Issued
Empire Technology Development LLC	United States of America	9240915 14/361705	May 30, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1837019	Apr 19, 2013	Issued
Empire Technology Development LLC	United States of America	15/110,953	Jul 12, 2016	Allowed
Empire Technology Development LLC	United States of America	9936459 14/438522	Apr 24, 2015	Issued
Empire Technology Development LLC	United States of America	9466869 14/386644	Sep 19, 2014	Issued
Empire Technology Development LLC	China	ZL201380079426.4	Sep 6, 2013	Issued
Empire Technology Development LLC	Japan	6175194	Sep 6, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1799709	Sep 6, 2013	Issued
Empire Technology Development LLC	United States of America	10104661 14/372958	Jul 30, 2015	Issued
Empire Technology Development LLC	United States of America	16/155,530	Oct 9, 2018	Marked for Impairing
Empire Technology Development LLC	United States of America	9491025 14/781134	Sep 29, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1838415	Jul 25, 2013	Issued

Empire Technology Development LLC	China	201380078368.3	Jul 25, 2013	Published
Empire Technology Development LLC	European Patent Office	13890054.3	Jul 25, 2013	Published
Empire Technology Development LLC	United States of America	9753782 14/655407	Jun 25, 2015	Issued
Empire Technology Development LLC	United States of America	10142424 14/408560	Dec 16, 2014	Issued
Empire Technology Development LLC	United States of America	10010811 14/894897	Nov 30, 2015	Issued
Empire Technology Development LLC	United States of America	9059831 14/368449	Jun 24, 2014	Issued
Empire Technology Development LLC	China	ZL201380077835.0 201380077835.0	Jul 26, 2013	Issued
Empire Technology Development LLC	European Patent Office	3025467 13889956.2	Jul 26, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1628649 10-2016-7002642	Jul 26, 2013	Issued
Empire Technology Development LLC	United Kingdom	3025467 13889956.2	Jul 26, 2013	Issued
Empire Technology Development LLC	France	3025467 13889956.2	Jul 26, 2013	Issued
Empire Technology Development LLC	Germany	3025467 602013025663.2	Jul 26, 2013	Issued
Empire Technology Development LLC	United States of America	10065130 14/894858	Nov 30, 2015	Issued
Empire Technology Development LLC	China	ZL201380076959.7 201380076959.7	May 28, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1785345 10-2016-7005313	Jul 31, 2013	Issued
Empire Technology Development LLC	United States of America	14/374,144	Jul 23, 2014	Marked for Impairing
Empire Technology Development LLC	China	201380078551.3	Jul 31, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9717991 14/409526	Dec 19, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1780879 10-2015-7021838	Mar 6, 2013	Issued
Empire Technology Development LLC	United States of America	9526992 14/409464	Dec 18, 2014	Issued
Empire Technology Development LLC	United States of America	9849390 15/367031	Dec 1, 2016	Issued
Empire Technology Development LLC	United States of America	15/109,568	Jul 1, 2016	Published
Empire Technology Development LLC	United States of America	15/312,203	Nov 18, 2016	Published
Empire Technology Development LLC	United States of America	9735847 14/382659	Sep 3, 2014	Issued
Empire Technology Development LLC	China	201380080230.7	Oct 16, 2013	Published
Empire Technology Development LLC	European Patent Office	13895736.0	Oct 16, 2013	Published
Empire Technology Development LLC	United States of America	9827498 14/408768	Dec 17, 2014	Issued
Empire Technology Development LLC	United States of America	9959307 14/431490	Mar 26, 2015	Issued
Empire Technology Development LLC	United States of America	9603030 14/438521	Apr 24, 2015	Issued
Empire Technology Development LLC	United States of America	9867038 15/459292	Mar 15, 2017	Issued
Empire Technology Development LLC	United States of America	9509818 14/409530	Dec 19, 2014	Issued
Empire Technology Development LLC	United States of America	15/299,840	Oct 21, 2016	Published
Empire Technology Development LLC	United States of America	15/128,427	Sep 23, 2016	Published
Empire Technology Development LLC	United States of America	15/507,389	Feb 28, 2017	Published
Empire Technology Development LLC	United States of America	9959317 14/434227	Apr 8, 2015	Issued
Empire Technology Development LLC	United States of America	9584388 14/443902	May 19, 2015	Issued



Empire Technology Development LLC	China	201480076814.1	Apr 3, 2014 Published
Empire Technology Development LLC	United States of America	9515710 14/390629	Oct 3, 2014 Issued
Empire Technology Development LLC	United States of America	9787381 15/296206	Oct 18, 2016 Issued
Empire Technology Development LLC	China	201380080250.4	Oct 16, 2013 Published
Empire Technology Development LLC	European Patent Office	13895597.6	Oct 16, 2013 Published
Empire Technology Development LLC	United States of America	9967357 14/648001	Oct 16, 2013 Published
Empire Technology Development LLC	China	201380080949.0	May 28, 2015 Issued
Empire Technology Development LLC	United States of America	9590933 14/387081	Nov 14, 2013 Allowed
Empire Technology Development LLC	United States of America	10063502 15/429881	Sep 22, 2014 Issued
Empire Technology Development LLC	United States of America	9613434 14/376532	Feb 10, 2017 Issued
Empire Technology Development LLC	Republic of Korea	10-1804082	Aug 4, 2014 Issued
Empire Technology Development LLC	United States of America	10-2016-7013481	Dec 12, 2013 Issued
Empire Technology Development LLC	China	14/787,135	Oct 26, 2015 Published
Empire Technology Development LLC	United States of America	201480078442.6	May 29, 2014 Allowed
Empire Technology Development LLC	United States of America	9668108 14/440239	May 1, 2015 Issued
Empire Technology Development LLC	United States of America	10078964 15/589019	May 8, 2017 Issued
Empire Technology Development LLC	United States of America	9923378 15/031394	Apr 22, 2016 Issued
Empire Technology Development LLC	United States of America	15/318,650	Dec 13, 2016 Published
Empire Technology Development LLC	United States of America	9406114 14/428244	Mar 13, 2015 Issued
Empire Technology Development LLC	United States of America	9619928 15/203407	Jul 6, 2016 Issued
Empire Technology Development LLC	United States of America	15/483,418	Apr 10, 2017 Published
Empire Technology Development LLC	United States of America	15/504,047	Feb 15, 2017 Published
Empire Technology Development LLC	China	201480081349.0	Aug 19, 2014 Published
Empire Technology Development LLC	United States of America	9787344 14/785882	Oct 21, 2015 Issued
Empire Technology Development LLC	United States of America	15/317,904	Dec 9, 2016 Published
Empire Technology Development LLC	United States of America	15/122,001	Aug 26, 2016 Published
Empire Technology Development LLC	China	ZL 2014800752228	Feb 27, 2014 Issued
Empire Technology Development LLC	Republic of Korea	10-2016-7025719	Feb 27, 2014 Published
Empire Technology Development LLC	United States of America	15/125,917	Sep 13, 2016 Published
Empire Technology Development LLC	United States of America	15/119,044	Aug 15, 2016 Published
Empire Technology Development LLC	United States of America	9710618 14/432123	Mar 27, 2015 Issued
Empire Technology Development LLC	United States of America	15/518,122	Apr 10, 2017 Marked for Impairing
Empire Technology Development LLC	European Patent Office	14903566.9	Oct 10, 2014 Marked for Impairing
Empire Technology Development LLC	United States of America	15/510,260	Mar 10, 2017 Published
Empire Technology Development LLC	United States of America	9811383 14/647701	May 27, 2015 Issued
Empire Technology Development LLC	United States of America	15/786,165	Oct 17, 2017 Published
Empire Technology Development LLC	United States of America	14/435,388	Apr 13, 2015 Published

Empire Technology Development LLC	United States of America	9336220 14/439898	Apr 30, 2015	Issued
Empire Technology Development LLC	United States of America	9558261 15/092229	Apr 6, 2016	Issued
Empire Technology Development LLC	Republic of Korea	10-2016-7034055	May 5, 2014	Published
Empire Technology Development LLC	United States of America	9578131 14/439987	Apr 30, 2015	Issued
Empire Technology Development LLC	China	201480078704.9	Jun 12, 2014	Published
Empire Technology Development LLC	United States of America	15/540,055	Jun 27, 2017	Published
Empire Technology Development LLC	United States of America	9736426 14/442187	May 12, 2015	Issued
Empire Technology Development LLC	United States of America	9761030 14/767165	Aug 11, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1923011 10-2017-7012635	Oct 10, 2014	Issued
Empire Technology Development LLC	United States of America	15/500,928	Jan 31, 2017	Published
Empire Technology Development LLC	European Patent Office	14899031.0	Aug 1, 2014	Published
Empire Technology Development LLC	United States of America	9819690 14/768960	Aug 19, 2015	Issued
Empire Technology Development LLC	United States of America	15/540,317	Jun 28, 2017	Published
Empire Technology Development LLC	United States of America	15/564,794	Oct 6, 2017	Published
Empire Technology Development LLC	United States of America	9740763 14/777668	Sep 16, 2015	Issued
Empire Technology Development LLC	United States of America	9781042 14/905837	Jan 18, 2016	Issued
Empire Technology Development LLC	United States of America	9100938 13/817926	Feb 20, 2013	Issued
Empire Technology Development LLC	China	201280073854.1	May 9, 2012	Marked for Impairing
Empire Technology Development LLC	European Patent Office	12876551.8	May 9, 2012	Published
Empire Technology Development LLC	United States of America	9846889 13/701131	Nov 30, 2012	Issued
Empire Technology Development LLC	China	ZL201280072260.9 201280072260.9	Apr 9, 2012	Issued
Empire Technology Development LLC	United States of America	9773111 13/825272	Mar 20, 2013	Issued
Empire Technology Development LLC	China	ZL201280075285.4 201280075285.4	Aug 14, 2012	Issued
Empire Technology Development LLC	United States of America	9306973 13/809482	Jan 10, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1723099 10-2015-7005952	Aug 6, 2012	Issued
Empire Technology Development LLC	United States of America	9697356 13/878707	Apr 10, 2013	Issued
Empire Technology Development LLC	China	ZL 201280075361.1 201280075361.1	Aug 21, 2012	Issued
Empire Technology Development LLC	United States of America	9369440 13/877578	Apr 3, 2013	Issued
Empire Technology Development LLC	China	ZL201280074892.9 201280074892.9	Jul 24, 2012	Issued
Empire Technology Development LLC	United States of America	9298931 13/882491	Apr 29, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1723877 10-2015-7006643	Aug 15, 2012	Issued
Empire Technology Development LLC	United States of America	15/049,537	Feb 22, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9207996 13/813209	Jan 30, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1620536 10-2015-7005477	Aug 1, 2012	Issued
Empire Technology Development LLC	United States of America	14/441,622	May 8, 2015	Published
Empire Technology Development LLC	United States of America	9619298 14/130128	Dec 30, 2013	Issued

Empire Technology Development LLC	United States of America	9866560	14/007560	Sep 25, 2013	Issued
Empire Technology Development LLC	United States of America		15/864,068	Jan 8, 2018	Published
Empire Technology Development LLC	United States of America	9430350	13/983654	Aug 5, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1681440	10-2015-7013449	Dec 6, 2012	Issued
Empire Technology Development LLC	United States of America		13/976,661	Jan 22, 2014	Published
Empire Technology Development LLC	United States of America	9286185	13/995794	Jun 19, 2013	Issued
Empire Technology Development LLC	United States of America	9408243	14/408135	Dec 15, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1786541	10-2015-7035401	May 13, 2013	Issued
Empire Technology Development LLC	United States of America	9713186	15/200648	Jul 1, 2016	Issued
Empire Technology Development LLC	China		201380078336.3	Jul 25, 2013	Allowed
Empire Technology Development LLC	United States of America	9817626	14/352266	Apr 16, 2014	Issued
Empire Technology Development LLC	United States of America	9699243	14/342377	Mar 1, 2014	Issued
Empire Technology Development LLC	United States of America	9350909	13/978850	Jun 19, 2017	Published
Empire Technology Development LLC	United States of America		15/098,740	Jul 9, 2013	Issued
Empire Technology Development LLC	United States of America	10079743	14/008377	Apr 14, 2016	Published
Empire Technology Development LLC	Taiwan R.O.C.	1556601	103111101	Sep 27, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1737777	10-2015-7034682	Mar 25, 2014	Issued
Empire Technology Development LLC	United States of America	9390682	14/232172	May 6, 2013	Issued
Empire Technology Development LLC	United States of America	9998411	13/981544	Jan 10, 2014	Issued
Empire Technology Development LLC	United States of America	9846661	14/333943	Jul 24, 2013	Issued
Empire Technology Development LLC	China	2015104244743	201510424474.3	Jul 17, 2014	Issued
Empire Technology Development LLC	United States of America	9898195	14/371706	Jul 17, 2015	Issued
Empire Technology Development LLC	United States of America	9965626	14/370399	Jul 10, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1723100	10-2016-7003975	Jul 2, 2014	Issued
Empire Technology Development LLC	United States of America		15/973,455	Jul 18, 2013	Issued
Empire Technology Development LLC	United States of America		15/477,784	May 7, 2018	Published
Empire Technology Development LLC	United States of America	9626773	14/358056	Apr 3, 2017	Allowed
Empire Technology Development LLC	Republic of Korea	10-1753200	10-2016-7007249	May 14, 2014	Issued
Empire Technology Development LLC	United States of America	9232563	14/118649	Sep 9, 2013	Issued
Empire Technology Development LLC	United States of America		15/843,174	Nov 19, 2013	Issued
Empire Technology Development LLC	United States of America	9852634	14/372104	Dec 15, 2017	Allowed
Empire Technology Development LLC	Republic of Korea		10-2016-7010751	Jul 14, 2014	Issued
Empire Technology Development LLC	United States of America		14/234,309	Oct 25, 2013	Marked for Impairing
Empire Technology Development LLC	Republic of Korea		10-2016-7006773	Jan 22, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	9946040	15/112165	Aug 22, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America			Jul 15, 2016	Issued

Empire Technology Development LLC	United States of America	9743250	14/343653	Mar 7, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1788274	10-2014-7023780	Oct 28, 2013	Issued
Empire Technology Development LLC	Japan	6280570	2015-557998	Oct 28, 2013	Issued
Empire Technology Development LLC	Japan		2018-006867	Oct 28, 2013	Pending
Empire Technology Development LLC	European Patent Office		13896373.1	Oct 28, 2013	Published
Empire Technology Development LLC	United States of America	9338761	14/382662	Sep 3, 2014	Issued
Empire Technology Development LLC	United States of America	9769311	15/092773	Apr 7, 2016	Issued
Empire Technology Development LLC	United States of America	10003687	15/705726	Sep 15, 2017	Issued
Empire Technology Development LLC	United States of America		15/953,229	Apr 13, 2018	Published
Empire Technology Development LLC	United States of America	10123126	15/114411	Jul 27, 2016	Issued
Empire Technology Development LLC	United States of America	9913048	15/117165	Aug 5, 2016	Issued
Empire Technology Development LLC	United States of America		15/115,273	Jul 29, 2016	Allowed
Empire Technology Development LLC	United States of America	9778366	14/378184	Aug 12, 2014	Issued
Empire Technology Development LLC	United States of America		14/384,887	Sep 12, 2014	Allowed
Empire Technology Development LLC	Japan	6205498	2016-545308	Jan 31, 2014	Issued
Empire Technology Development LLC	European Patent Office		14881088.0	Jan 31, 2014	Published
Empire Technology Development LLC	United States of America		15/117,169	Aug 5, 2016	Published
Empire Technology Development LLC	United States of America	9785257	14/916546	Mar 3, 2016	Issued
Empire Technology Development LLC	United States of America	9990058	15/726570	Oct 6, 2017	Issued
Empire Technology Development LLC	United States of America		15/804,283	Nov 6, 2017	Marked for Impairing
Empire Technology Development LLC	United States of America	9810783	14/278802	May 15, 2014	Issued
Empire Technology Development LLC	Republic of Korea		10-2016-7030167	Apr 9, 2014	Allowed
Empire Technology Development LLC	United States of America	9764712	15/117375	Aug 8, 2016	Issued
Empire Technology Development LLC	United States of America	10005427	15/707436	Sep 18, 2017	Issued
Empire Technology Development LLC	United States of America		15/991,734	May 29, 2018	Published
Empire Technology Development LLC	United States of America	9953462	14/384825	Sep 12, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1827550	10-2016-7022752	Jan 31, 2014	Issued
Empire Technology Development LLC	European Patent Office		14880509.6	Jan 31, 2014	Published
Empire Technology Development LLC	United States of America	9990772	14/384870	Sep 12, 2014	Issued
Empire Technology Development LLC	Japan	6334715	2016-547936	Jan 31, 2014	Issued
Empire Technology Development LLC	European Patent Office		14881231.6	Jan 31, 2014	Published
Empire Technology Development LLC	United States of America	10147293	14/425591	Mar 3, 2015	Issued
Empire Technology Development LLC	United States of America	9471129	14/454121	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America	9747924	14/440236	May 1, 2015	Issued
Empire Technology Development LLC	United States of America	9984703	15/684369	Aug 23, 2017	Issued
Empire Technology Development LLC	United States of America	9232476	14/301554	Jun 11, 2014	Issued

Empire Technology Development LLC	United States of America	9485736 14/955199	Dec 1, 2015 Issued
Empire Technology Development LLC	United States of America	9900841 15/277678	Sep 27, 2016 Issued
Empire Technology Development LLC	United States of America	15/864,657	Jan 8, 2018 Published
Empire Technology Development LLC	United States of America	9937666 14/296380	Jun 4, 2014 Issued
Empire Technology Development LLC	United States of America	15/934,891	Mar 23, 2018 Published
Empire Technology Development LLC	United States of America	9865088 14/384917	Sep 12, 2014 Issued
Empire Technology Development LLC	Republic of Korea	10-1821982 10-2016-7021280	Jan 31, 2014 Issued
Empire Technology Development LLC	European Patent Office	3100240 14880818.1	Jan 31, 2014 Issued
Empire Technology Development LLC	France	3100240 14880818.1	Jan 31, 2014 Issued
Empire Technology Development LLC	Germany	3100240 14880818.1	Jan 31, 2014 Issued
Empire Technology Development LLC	United Kingdom	3100240 14880818.1	Jan 31, 2014 Issued
Empire Technology Development LLC	United States of America	9424181 14/305691	Jun 16, 2014 Issued
Empire Technology Development LLC	Republic of Korea	10-2015-0072691	May 26, 2015 Marked for Impairing
Empire Technology Development LLC	China	2015104898193 201510489819.3	Aug 11, 2015 Issued
Empire Technology Development LLC	United States of America	14/456,107	Aug 11, 2014 Marked for Impairing
Empire Technology Development LLC	United States of America	9858811 14/518144	Oct 20, 2014 Issued
Empire Technology Development LLC	Republic of Korea	10-1820575 10-2015-0144701	Oct 16, 2015 Issued
Empire Technology Development LLC	China	201510563406.5	Sep 7, 2015 Allowed
Empire Technology Development LLC	United States of America	9432380 14/492938	Sep 22, 2014 Issued
Empire Technology Development LLC	Republic of Korea	10-1723098 10-2015-0131558	Sep 17, 2015 Issued
Empire Technology Development LLC	United States of America	9689695 14/491937	Sep 19, 2014 Issued
Empire Technology Development LLC	United States of America	15/622,385	Jun 14, 2017 Published
Empire Technology Development LLC	United States of America	9553882 14/480041	Sep 8, 2014 Issued
Empire Technology Development LLC	Japan	6081540 2015-159795	Aug 13, 2015 Issued
Empire Technology Development LLC	United States of America	9836650 14/617165	Feb 9, 2015 Issued
Empire Technology Development LLC	Japan	6050904 2016-017655	Feb 2, 2016 Issued
Empire Technology Development LLC	United States of America	14/434,062	Apr 7, 2015 Published
Empire Technology Development LLC	United States of America	14/787,849	Oct 29, 2015 Marked for Impairing
Empire Technology Development LLC	United States of America	14/761,389	Jul 16, 2015 Marked for Impairing
Empire Technology Development LLC	India	278292 2121/CHE/2008	Aug 29, 2008 Issued
Empire Technology Development LLC	United States of America	8510241 12/541171	Aug 14, 2009 Issued
Empire Technology Development LLC	United States of America	8788622 12/551175	Aug 31, 2009 Issued
Empire Technology Development LLC	China	ZL201080023897.X 201080023897.X	Jun 15, 2010 Issued
Empire Technology Development LLC	United States of America	9268752 14/325501	Jul 8, 2014 Issued
Empire Technology Development LLC	United States of America	14/992,147	Jan 11, 2016 Published
Empire Technology Development LLC	United States of America	8893496 12/506259	Jul 21, 2009 Issued

Empire Technology Development LLC	India	2055/DEL/2008	Aug 29, 2008	Published
Empire Technology Development LLC	United States of America	8310367 12/551164	Aug 31, 2009	Issued
Empire Technology Development LLC	India	2118/CHE/2008	Aug 29, 2008	Published
Empire Technology Development LLC	India	278313	Aug 29, 2008	Issued
Empire Technology Development LLC	United States of America	8290924 12/504684	Jul 17, 2009	Issued
Empire Technology Development LLC	United States of America	8296850 12/195786	Aug 21, 2008	Issued
Empire Technology Development LLC	India	1304/DEL/2008	May 28, 2008	Published
Empire Technology Development LLC	United States of America	8656176 12/257140	Oct 23, 2008	Issued
Empire Technology Development LLC	United States of America	9972008 14/100296	Dec 9, 2013	Issued
Empire Technology Development LLC	India	2131/CHE/2008	Sep 1, 2008	Published
Empire Technology Development LLC	United States of America	8248038 12/550197	Aug 28, 2009	Issued
Empire Technology Development LLC	China	ZL201080031906.X 201080031906.X	May 26, 2010	Issued
Empire Technology Development LLC	United States of America	8889394 12/554949	Sep 7, 2009	Issued
Empire Technology Development LLC	United States of America	8587222 12/550473	Aug 31, 2009	Issued
Empire Technology Development LLC	United States of America	8476794 12/551065	Aug 31, 2009	Issued
Empire Technology Development LLC	United States of America	8351017 12/648081	Dec 28, 2009	Issued
Empire Technology Development LLC	China	ZL201080044704.9 201080044704.9	Aug 9, 2010	Issued
Empire Technology Development LLC	Japan	5524337 2012-526133	Aug 9, 2010	Issued
Empire Technology Development LLC	United States of America	8508674 13/709670	Dec 10, 2012	Issued
Empire Technology Development LLC	United States of America	8255574 12/550697	Aug 31, 2009	Issued
Empire Technology Development LLC	European Patent Office	2433222 10777441.6	May 19, 2010	Issued
Empire Technology Development LLC	United Kingdom	2433222 10777441.6	May 19, 2010	Issued
Empire Technology Development LLC	France	2433222 10777441.6	May 19, 2010	Issued
Empire Technology Development LLC	Germany	2433222 602010045404.5	May 19, 2010	Issued
Empire Technology Development LLC	India	1157/CHE/2009	May 20, 2009	Published
Empire Technology Development LLC	United States of America	8946112 12/638154	Dec 15, 2009	Issued
Empire Technology Development LLC	China	ZL201080048949.9 201080048949.9	Sep 9, 2010	Issued
Empire Technology Development LLC	Japan	5398918 2012-535962	Sep 9, 2010	Issued
Empire Technology Development LLC	United States of America	9474996 14/577932	Dec 19, 2014	Issued
Empire Technology Development LLC	European Patent Office	10826202.3	Sep 9, 2010	Published
Empire Technology Development LLC	United States of America	8951783 13/254153	Aug 31, 2011	Issued
Empire Technology Development LLC	China	ZL201080065927.3 201080065927.3	Nov 23, 2010	Issued
Empire Technology Development LLC	Japan	5632529 2013-501972	Nov 23, 2010	Issued
Empire Technology Development LLC	United States of America	8287719 12/750304	Mar 30, 2010	Issued
Empire Technology Development LLC	United States of America	9513299 13/619620	Sep 14, 2012	Issued
Empire Technology Development LLC	India	118/KOL/2010	Feb 9, 2010	Published



Empire Technology Development LLC	United States of America	9739512	13/102896	May 6, 2011	Issued
Empire Technology Development LLC	United States of America	8879240	13/130842	May 24, 2011	Issued
Empire Technology Development LLC	United States of America	8317917	13/390580	Feb 15, 2012	Issued
Empire Technology Development LLC	India	2074/CHE/2010		Jul 20, 2010	Marked for Impairing
Empire Technology Development LLC	European Patent Office	10854984.1		Oct 19, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	8863996	13/395839	Mar 13, 2012	Issued
Empire Technology Development LLC	United States of America	8845792	13/263998	Oct 12, 2011	Issued
Empire Technology Development LLC	China	ZL201180054993.5	201180054993.5	Jan 12, 2011	Issued
Empire Technology Development LLC	United States of America	9063074	13/202269	Aug 18, 2011	Issued
Empire Technology Development LLC	United States of America	8940199	14/129035	Dec 23, 2013	Issued
Empire Technology Development LLC	China	ZL201180072274.6	201180072274.6	Oct 17, 2011	Issued
Empire Technology Development LLC	Japan	5820073	2014-525501	Oct 17, 2011	Issued
Empire Technology Development LLC	United States of America	9739934	14/590758	Jan 6, 2015	Issued
Empire Technology Development LLC	United States of America	9225043	13/147926	Aug 4, 2011	Issued
Empire Technology Development LLC	United States of America	9324997	14/946216	Nov 19, 2015	Issued
Empire Technology Development LLC	United States of America	9602445	13/582831	Sep 5, 2012	Issued
Empire Technology Development LLC	United States of America	9967215	15/463203	Mar 20, 2017	Issued
Empire Technology Development LLC	United States of America	8457885	13/498556	Mar 27, 2012	Issued
Empire Technology Development LLC	United States of America	8560238	13/859665	Apr 9, 2013	Issued
Empire Technology Development LLC	China	ZL201180066595.5	201180066595.5	Jun 16, 2011	Issued
Empire Technology Development LLC	United States of America	8731833	13/949125	Jul 23, 2013	Issued
Empire Technology Development LLC	India	0296/CHE/2011		Feb 1, 2011	Published
Empire Technology Development LLC	China	201510934136.4		Jun 16, 2011	Published
Empire Technology Development LLC	Republic of Korea	10-2017-7015524		Jun 16, 2011	Marked for Impairing
Empire Technology Development LLC	United States of America	9275404	13/497494	Mar 21, 2012	Issued
Empire Technology Development LLC	United States of America	14/988,413		Jan 5, 2016	Marked for Impairing
Empire Technology Development LLC	China	ZL201180070175.4	201180070175.4	Jun 13, 2011	Issued
Empire Technology Development LLC	Japan	5914634	2014-504400	Jun 13, 2011	Issued
Empire Technology Development LLC	United States of America	9060191	13/378993	Dec 16, 2011	Issued
Empire Technology Development LLC	China	ZL201180071732.4	201180071732.4	Jun 20, 2011	Issued
Empire Technology Development LLC	European Patent Office	2700267	11863999.6	Jun 20, 2011	Issued
Empire Technology Development LLC	Japan	5883500	2014-505732	Jun 20, 2011	Issued
Empire Technology Development LLC	Germany	2700267	602011035320.9	Jun 20, 2011	Issued
Empire Technology Development LLC	France	2700267	11863999.6	Jun 20, 2011	Issued
Empire Technology Development LLC	United Kingdom	2700267	11863999.6	Jun 20, 2011	Issued
Empire Technology Development LLC	India	1369/CHE/2011		Apr 20, 2011	Published

Empire Technology Development LLC	United States of America	9037164 13/643957	Oct 26, 2012	Issued
Empire Technology Development LLC	China	ZL201180074267.X	Dec 5, 2011	Issued
Empire Technology Development LLC	Japan	5847951 2014-536343	Dec 5, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1632648 10-2014-7013090	Dec 5, 2011	Issued
Empire Technology Development LLC	European Patent Office	11874276.6	Dec 5, 2011	Marked for Impairing
Empire Technology Development LLC	United States of America	9055396 13/700393	Nov 27, 2012	Issued
Empire Technology Development LLC	United States of America	9288634 14/717644	May 20, 2015	Issued
Empire Technology Development LLC	United States of America	9712979 15/008143	Jan 27, 2016	Issued
Empire Technology Development LLC	India	0914/CHE/2012	Mar 13, 2012	Published
Empire Technology Development LLC	United States of America	9422165 14/397302	Oct 27, 2014	Issued
Empire Technology Development LLC	India	1665/CHE/2012	Apr 27, 2012	Published
Empire Technology Development LLC	United States of America	9416311 14/399277	Nov 6, 2014	Issued
Empire Technology Development LLC	China	ZL201280073041.2 201280073041.2	Nov 26, 2012	Issued
Empire Technology Development LLC	European Patent Office	12876127.7	Nov 26, 2012	Marked for Impairing
Empire Technology Development LLC	United States of America	9313083 13/576339	Jul 31, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1563277 10-2014-7016175	Mar 9, 2012	Issued
Empire Technology Development LLC	Japan	6129865 2014-545389	Mar 9, 2012	Issued
Empire Technology Development LLC	United States of America	15/050,856	Feb 23, 2016	Published
Empire Technology Development LLC	United States of America	9160681 13/641126	Oct 14, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1558471 10-2014-7021566	Mar 15, 2012	Issued
Empire Technology Development LLC	Japan	6077009 2014-552697	Mar 15, 2012	Issued
Empire Technology Development LLC	United States of America	8949654 13/582741	Sep 4, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1675818 10-2014-7021661	Mar 15, 2012	Issued
Empire Technology Development LLC	Japan	6244309 2014-546660	Mar 15, 2012	Issued
Empire Technology Development LLC	United States of America	9882109 14/440842	May 5, 2015	Issued
Empire Technology Development LLC	United States of America	14/661,888	Mar 18, 2015	Allowed
Empire Technology Development LLC	United States of America	9015859 13/635632	Sep 17, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1570946 10-2014-7012524	Mar 30, 2012	Issued
Empire Technology Development LLC	United States of America	9804896 14/128477	Dec 20, 2013	Issued
Empire Technology Development LLC	United States of America	9940170 13/978949	Jul 10, 2013	Issued
Empire Technology Development LLC	United States of America	15/933,424	Mar 23, 2018	Marked for Impairing
Empire Technology Development LLC	United States of America	9636065 14/350746	Apr 9, 2014	Issued
Empire Technology Development LLC	United States of America	14/409,978	Dec 19, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	9987616 14/769819	Aug 23, 2015	Issued
Empire Technology Development LLC	United States of America	9258355 13/822201	Mar 11, 2013	Issued
Empire Technology Development LLC	United States of America	9942306 14/974240	Dec 18, 2015	Issued



Empire Technology Development LLC	United States of America	14/782,787	Oct 6, 2015 Published
Empire Technology Development LLC	United States of America	9708530 14/402090	Nov 18, 2014 Issued
Empire Technology Development LLC	China	ZL201380067736.4 201380067736.4	Oct 28, 2013 Issued
Empire Technology Development LLC	United States of America	9864709 14/383895	Sep 8, 2014 Issued
Empire Technology Development LLC	United States of America	9405691 14/369913	Jun 30, 2014 Issued
Empire Technology Development LLC	China	ZL 2013800772706 201380077270.6	Aug 12, 2013 Issued
Empire Technology Development LLC	China	201380079041.8	Dec 4, 2013 Allowed
Empire Technology Development LLC	United States of America	9916086 14/648692	May 29, 2015 Issued
Empire Technology Development LLC	China	201380074974.8	Jun 24, 2013 Allowed
Empire Technology Development LLC	United States of America	9204448 14/123199	Nov 29, 2013 Issued
Empire Technology Development LLC	United States of America	9572165 14/833082	Aug 22, 2015 Issued
Empire Technology Development LLC	United States of America	9785568 14/715114	May 18, 2015 Issued
Empire Technology Development LLC	India	2476/CHE/2014	May 19, 2014 Marked for Impairing
Empire Technology Development LLC	United States of America	9811469 14/407761	Dec 12, 2014 Issued
Empire Technology Development LLC	India	5851/CHE/2013	Dec 16, 2013 Published
Empire Technology Development LLC	United States of America	9483318 14/371322	Jul 9, 2014 Issued
Empire Technology Development LLC	China	ZL 2014800296117 201480029611.7	Mar 18, 2014 Issued
Empire Technology Development LLC	United States of America	14/782,240	Oct 2, 2015 Published
Empire Technology Development LLC	European Patent Office	14779545.4	Mar 18, 2014 Published
Empire Technology Development LLC	United States of America	9706620 14/780996	Sep 28, 2015 Issued
Empire Technology Development LLC	China	ZL201480030663.6 201480030663.6	Mar 27, 2014 Issued
Empire Technology Development LLC	United States of America	9320052 14/354112	Apr 24, 2014 Issued
Empire Technology Development LLC	India	1760/CHE/2013	Apr 22, 2013 Published
Empire Technology Development LLC	European Patent Office	13882828.0	Jun 24, 2013 Published
Empire Technology Development LLC	United States of America	9554293 14/354116	Apr 24, 2014 Issued
Empire Technology Development LLC	United States of America	15/345,901	Nov 8, 2016 Marked for Impairing
Empire Technology Development LLC	United States of America	14/481,439	Sep 9, 2014 Marked for Impairing
Empire Technology Development LLC	United States of America	9914647 14/520358	Oct 22, 2014 Issued
Empire Technology Development LLC	United States of America	9834687 14/905815	Jan 17, 2016 Issued
Empire Technology Development LLC	India	3183/CHE/2013	Jul 17, 2013 Published
Empire Technology Development LLC	United States of America	9725332 14/522577	Oct 23, 2014 Issued
Empire Technology Development LLC	United States of America	15/611,886	Jun 2, 2017 Published
Empire Technology Development LLC	United States of America	9534977 14/830547	Aug 19, 2015 Issued
Empire Technology Development LLC	United States of America	9795311 15/355616	Nov 18, 2016 Issued
Empire Technology Development LLC	India	2359/DEL/2014	Aug 20, 2014 Marked for Impairing
Empire Technology Development LLC	United States of America	9556342 14/549895	Nov 21, 2014 Issued

Empire Technology Development LLC	United States of America	9862663	14/640465	Mar 6, 2015	Issued
Empire Technology Development LLC	India		2120/DEL/2014	Jul 26, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America		14/809,793	Jul 27, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America		14/924,341	Oct 27, 2015	Allowed
Empire Technology Development LLC	India		2058/DEL/2015	Jul 7, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9926480	14/524690	Oct 27, 2014	Issued
Empire Technology Development LLC	United States of America	10032014	14/716443	May 19, 2015	Issued
Empire Technology Development LLC	India		2489/CHE/2014	May 19, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America		14/933,049	Nov 5, 2015	Allowed
Empire Technology Development LLC	India		5598/CHE/2014	Nov 6, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	10035124	14/824754	Aug 12, 2015	Issued
Empire Technology Development LLC	India		3959/CHE/2014	Aug 12, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	9621253	14/706926	May 7, 2015	Issued
Empire Technology Development LLC	India		2324/CHE/2014	May 9, 2014	Marked for Impairing
Empire Technology Development LLC	China		201510232848.1	May 8, 2015	Published
Empire Technology Development LLC	United States of America	9481622	14/660370	Mar 17, 2015	Issued
Empire Technology Development LLC	United States of America	9932495	14/694250	Apr 23, 2015	Issued
Empire Technology Development LLC	United States of America	10059589	15/326481	Jan 14, 2017	Issued
Empire Technology Development LLC	India		3474/CHE/2014	Jul 14, 2014	Marked for Impairing
Empire Technology Development LLC	PCT		PCT/IB2017/056914	Nov 6, 2017	Published
Empire Technology Development LLC	PCT		PCT/IB2017/056102	Oct 4, 2017	Published
Empire Technology Development LLC	PCT		PCT/IB2017/056174	Oct 6, 2017	Published
Empire Technology Development LLC	PCT		PCT/IB2017/057153	Nov 16, 2017	Published
Empire Technology Development LLC	United States of America		15/326,482	Jan 14, 2017	Marked for Impairing
Empire Technology Development LLC	India		3277/DEL/2015	Oct 12, 2015	Published
Empire Technology Development LLC	United States of America		15/290,161	Oct 11, 2016	Published
Empire Technology Development LLC	United States of America	8623127	12/666954	Dec 28, 2009	Issued
Empire Technology Development LLC	United States of America	9174366	14/092301	Nov 27, 2013	Issued
Empire Technology Development LLC	United States of America	8409910	12/593574	Sep 28, 2009	Issued
Empire Technology Development LLC	United States of America	9373805	13/793745	Mar 11, 2013	Issued
Empire Technology Development LLC	United States of America	8568862	12/530553	Sep 9, 2009	Issued
Empire Technology Development LLC	United States of America	9200012	14/054673	Oct 15, 2013	Issued
Empire Technology Development LLC	United States of America	8475916	12/597743	Oct 26, 2009	Issued
Empire Technology Development LLC	Japan	5027237	2009-529440	Mar 28, 2008	Issued
Empire Technology Development LLC	United States of America		8104093	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America		8631510	Dec 8, 2011	Issued

Empire Technology Development LLC	Japan	4269001	2008-553563	Jul 31, 2008	Issued
Empire Technology Development LLC	United States of America		8623663 12/665710	Dec 18, 2009	Issued
Empire Technology Development LLC	Japan	4269002	2008-553568	Jul 31, 2008	Issued
Empire Technology Development LLC	Japan	4465038	2009-529441	Aug 20, 2008	Issued
Empire Technology Development LLC	Japan	4648473	2009-188110	Aug 14, 2009	Issued
Empire Technology Development LLC	United States of America		8057976 12/544839	Aug 20, 2009	Issued
Empire Technology Development LLC	United States of America		8715530 12/663060	Dec 4, 2009	Issued
Empire Technology Development LLC	United States of America		9580645 14/194312	Feb 28, 2014	Issued
Empire Technology Development LLC	United States of America		8455092 12/663078	Dec 4, 2009	Issued
Empire Technology Development LLC	United States of America		8951627 12/663082	Dec 4, 2009	Issued
Empire Technology Development LLC	United States of America		8404078 12/601748	Nov 24, 2009	Issued
Empire Technology Development LLC	United States of America		8597460 13/767094	Feb 14, 2013	Issued
Empire Technology Development LLC	United States of America		8334051 12/601968	Nov 25, 2009	Issued
Empire Technology Development LLC	United States of America		8366867 12/664723	Dec 15, 2009	Issued
Empire Technology Development LLC	United States of America		8449180 12/161760	Jul 22, 2008	Issued
Empire Technology Development LLC	United States of America		9447284 12/598288	Oct 30, 2009	Issued
Empire Technology Development LLC	United States of America		8252249 11/783892	Apr 12, 2007	Issued
Empire Technology Development LLC	United States of America		9180206 12/600002	Nov 13, 2009	Issued
Empire Technology Development LLC	United States of America		8592676 12/664242	Dec 11, 2009	Issued
Empire Technology Development LLC	United States of America		8623500 12/665027	Dec 16, 2009	Issued
Empire Technology Development LLC	United States of America		9330807 14/088737	Nov 25, 2013	Issued
Empire Technology Development LLC	United States of America		8658888 12/665298	Dec 17, 2009	Issued
Empire Technology Development LLC	Japan	4402161	2009-082395	Dec 28, 2009	Marked for Impairing
Empire Technology Development LLC	United States of America		7898591 12/640986	Mar 30, 2009	Issued
Empire Technology Development LLC	Japan	4523063	2009-081715	Dec 17, 2009	Issued
Empire Technology Development LLC	United States of America		8330055 12/642110	Mar 30, 2009	Issued
Empire Technology Development LLC	United States of America		8251885 12/564695	Dec 18, 2009	Issued
Empire Technology Development LLC	Japan	4994401	2009-023379	Sep 22, 2009	Issued
Empire Technology Development LLC	United States of America		8026155 12/641079	Feb 4, 2009	Issued
Empire Technology Development LLC	Japan	4526597	2009-525828	Dec 17, 2009	Issued
Empire Technology Development LLC	Japan	4815496	2009-014258	Jan 26, 2009	Issued
Empire Technology Development LLC	United States of America		8226863 12/639836	Jan 26, 2009	Issued
Empire Technology Development LLC	Japan	4612739	2009-539561	Dec 16, 2009	Issued
Empire Technology Development LLC	United States of America		8058548 12/665015	Feb 4, 2009	Issued
Empire Technology Development LLC	China	ZL200980156051.0	200980156051.0	Dec 16, 2009	Issued
				Feb 4, 2009	Issued

Empire Technology Development LLC	Germany	112009004290	112009004290.2	Feb 4, 2009	Issued
Empire Technology Development LLC	United States of America	8404964	13/252428	Oct 4, 2011	Issued
Empire Technology Development LLC	Japan	4368934	2009-027120	Feb 9, 2009	Issued
Empire Technology Development LLC	United States of America	8011603	12/642279	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	8403239	13/193137	Jul 28, 2011	Issued
Empire Technology Development LLC	Japan	4484090	2009-085823	Mar 31, 2009	Issued
Empire Technology Development LLC	United States of America	8077589	12/642392	Dec 18, 2009	Issued
Empire Technology Development LLC	Japan	4571229	2009-541659	Jan 29, 2009	Issued
Empire Technology Development LLC	United States of America	9080138	12/665020	Dec 16, 2009	Issued
Empire Technology Development LLC	Japan	4504459	2009-540538	Jan 29, 2009	Issued
Empire Technology Development LLC	United States of America	8232111	12/665434	Dec 18, 2009	Issued
Empire Technology Development LLC	Japan	4515538	2009-516768	Dec 8, 2008	Issued
Empire Technology Development LLC	United States of America	7907451	12/665320	Dec 17, 2009	Issued
Empire Technology Development LLC	Japan	4344782	2009-123183	May 21, 2009	Issued
Empire Technology Development LLC	United States of America	7741840	12/540766	Aug 13, 2009	Issued
Empire Technology Development LLC	Japan	4376299	2009-131536	May 29, 2009	Issued
Empire Technology Development LLC	United States of America	8137770	12/614014	Nov 6, 2009	Issued
Empire Technology Development LLC	United States of America	10002483	13/369136	Feb 8, 2012	Issued
Empire Technology Development LLC	Japan	4376962	2009-060546	Mar 13, 2009	Issued
Empire Technology Development LLC	Japan	5044661	2009-545026	Mar 5, 2009	Issued
Empire Technology Development LLC	United States of America	8566060	12/665107	Dec 17, 2009	Issued
Empire Technology Development LLC	Japan	4931089	2009-060545	Mar 13, 2009	Issued
Empire Technology Development LLC	United States of America	8583452	12/640967	Dec 17, 2009	Issued
Empire Technology Development LLC	Japan	4369526	2009-060544	Mar 13, 2009	Issued
Empire Technology Development LLC	United States of America	7975284	12/568188	Sep 28, 2009	Issued
Empire Technology Development LLC	Japan	4573910	2009-545030	Mar 17, 2009	Issued
Empire Technology Development LLC	United States of America	8013866	12/665153	Dec 17, 2009	Issued
Empire Technology Development LLC	Japan	4614373	2009-545025	Mar 17, 2009	Issued
Empire Technology Development LLC	United States of America	8218054	12/665295	Dec 17, 2009	Issued
Empire Technology Development LLC	Japan	4726966	2009-020767	Jan 30, 2009	Issued
Empire Technology Development LLC	United States of America	9227504	12/642407	Dec 18, 2009	Issued
Empire Technology Development LLC	European Patent Office	2213496	09179687.0	Dec 17, 2009	Issued
Empire Technology Development LLC	Germany	2213496	602009009670.2	Dec 17, 2009	Issued
Empire Technology Development LLC	France	2213496	09179687.0	Dec 17, 2009	Issued
Empire Technology Development LLC	United Kingdom	2213496	09179687.0	Dec 17, 2009	Issued
Empire Technology Development LLC	Italy	2213496	502012902109845	Dec 17, 2009	Issued

Empire Technology Development LLC	Sweden	2213496	09179687.0	Dec 17, 2009	Issued
Empire Technology Development LLC	United States of America		9096846 12/645113	Dec 22, 2009	Issued
Empire Technology Development LLC	United States of America		9080140 12/628850	Dec 1, 2009	Issued
Empire Technology Development LLC	United States of America		8569048 12/631623	Dec 4, 2009	Issued
Empire Technology Development LLC	United States of America		9050061 12/550629	Aug 31, 2009	Issued
Empire Technology Development LLC	United States of America		8951765 12/624972	Nov 24, 2009	Issued
Empire Technology Development LLC	United States of America		8736146 12/641662	Dec 18, 2009	Issued
Empire Technology Development LLC	Japan	5319433	2009-167900	Jul 16, 2009	Issued
Empire Technology Development LLC	United States of America		8817118 12/641115	Dec 17, 2009	Issued
Empire Technology Development LLC	United States of America		9237267 14/335583	Jul 18, 2014	Issued
Empire Technology Development LLC	United States of America		9071066 12/645085	Dec 22, 2009	Issued
Empire Technology Development LLC	United States of America		8423128 12/645309	Dec 22, 2009	Issued
Empire Technology Development LLC	Japan	5437987	2010-282723	Dec 20, 2010	Issued
Empire Technology Development LLC	United States of America		8923960 13/682669	Nov 20, 2012	Issued
Empire Technology Development LLC	United States of America		8172777 12/559228	Sep 14, 2009	Issued
Empire Technology Development LLC	United States of America		9229779 12/647711	Dec 28, 2009	Issued
Empire Technology Development LLC	Japan	4519193	2009-174642	Jul 27, 2009	Issued
Empire Technology Development LLC	United States of America		7908144 12/641991	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America		9046762 12/708054	Feb 18, 2010	Issued
Empire Technology Development LLC	Japan	5380602	2012-501038	Jul 7, 2010	Issued
Empire Technology Development LLC	United States of America		8437985 12/645385	Dec 22, 2009	Issued
Empire Technology Development LLC	European Patent Office		10844125.4	Jun 23, 2010	Allowed
Empire Technology Development LLC	United States of America		8282994 12/691462	Jan 21, 2010	Issued
Empire Technology Development LLC	China	ZL201080058087.8	201080058087.8	Jun 23, 2010	Issued
Empire Technology Development LLC	Japan	5579277	2012-548928	Jun 23, 2010	Issued
Empire Technology Development LLC	Japan	5579172	2011-514213	May 14, 2010	Issued
Empire Technology Development LLC	European Patent Office		10851425.8	May 14, 2010	Published
Empire Technology Development LLC	United States of America		8337967 13/201607	Aug 15, 2011	Issued
Empire Technology Development LLC	United States of America		9221583 13/683894	Nov 21, 2012	Issued
Empire Technology Development LLC	Japan	5026483	2009-212434	Sep 14, 2009	Issued
Empire Technology Development LLC	Japan	4669567	2010-038398	Feb 24, 2010	Issued
Empire Technology Development LLC	United States of America		8669477 12/960259	Dec 3, 2010	Issued
Empire Technology Development LLC	United States of America		8404441 12/762474	Apr 19, 2010	Issued
Empire Technology Development LLC	European Patent Office	2561357	10850390.5	May 28, 2010	Issued
Empire Technology Development LLC	United States of America		9029128 13/775882	Feb 25, 2013	Issued
Empire Technology Development LLC	France	2561357	10850390.5	May 28, 2010	Issued

Empire Technology Development LLC	United Kingdom	2561357	10850390.5	May 28, 2010	Issued
Empire Technology Development LLC	Germany	2561357	602010020625.4	May 28, 2010	Issued
Empire Technology Development LLC	Japan	5200044	2010-056236	Mar 12, 2010	Issued
Empire Technology Development LLC	United States of America	8388874	12/969011	Dec 15, 2010	Issued
Empire Technology Development LLC	United States of America	8581426	13/000456	Dec 21, 2010	Issued
Empire Technology Development LLC	Japan	4590018	2010-043430	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	4590018	12/855908	Aug 13, 2010	Issued
Empire Technology Development LLC	Japan	4975841	2010-057926	Mar 15, 2010	Issued
Empire Technology Development LLC	United States of America	4680312	8451117 12/645495	Dec 23, 2009	Issued
Empire Technology Development LLC	Japan	4680312	2009-290053	Dec 22, 2009	Issued
Empire Technology Development LLC	United States of America	4723667	8405638 12/645176	Dec 22, 2009	Issued
Empire Technology Development LLC	Japan	4723667	2009-290427	Dec 22, 2009	Issued
Empire Technology Development LLC	United States of America	8427111 12/644660		Dec 22, 2009	Issued
Empire Technology Development LLC	United States of America	8773074 13/834941		Mar 15, 2013	Issued
Empire Technology Development LLC	Japan	4589447	2009-283043	Dec 14, 2009	Issued
Empire Technology Development LLC	United States of America	7981061 12/778352		May 12, 2010	Issued
Empire Technology Development LLC	Japan	5038451	2010-066464	Mar 23, 2010	Issued
Empire Technology Development LLC	Japan	4669560	2009-281319	Dec 11, 2009	Issued
Empire Technology Development LLC	United States of America	9206459 12/999469		Dec 16, 2010	Issued
Empire Technology Development LLC	Japan	4638551	2010-075108	Mar 29, 2010	Issued
Empire Technology Development LLC	Japan	4527194	2009-281897	Dec 11, 2009	Issued
Empire Technology Development LLC	United States of America	9607725 12/643434		Dec 21, 2009	Issued
Empire Technology Development LLC	United States of America	8767066 12/645496		Dec 23, 2009	Issued
Empire Technology Development LLC	United States of America	8441636 13/201124		Aug 11, 2011	Issued
Empire Technology Development LLC	China	ZL201080069836.7	201080069836.7	Nov 1, 2010	Issued
Empire Technology Development LLC	European Patent Office	10853354.8		Jun 16, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	8501100 13/000796		Dec 22, 2010	Issued
Empire Technology Development LLC	China	ZL201080067388.7	201080067388.7	Jun 16, 2010	Issued
Empire Technology Development LLC	United States of America	8481987 12/993641		Nov 19, 2010	Issued
Empire Technology Development LLC	Japan	5625109	2013-515316	Jun 18, 2010	Issued
Empire Technology Development LLC	United States of America	8585799 13/058944		Feb 14, 2011	Issued
Empire Technology Development LLC	Japan	5450897	2013-515304	Jun 15, 2010	Issued
Empire Technology Development LLC	United States of America	9303257 13/131152		May 25, 2011	Issued
Empire Technology Development LLC	Japan	5118120	2009-285400	Dec 16, 2009	Issued
Empire Technology Development LLC	United States of America	8395048 12/644754		Dec 22, 2009	Issued
Empire Technology Development LLC	Japan	4781477	2010-129060	Jun 4, 2010	Issued



Empire Technology Development LLC	Japan	4680319	2010-124275	May 31, 2010	Issued
Empire Technology Development LLC	United States of America	9075430	13/392966	Feb 28, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1505717	10-2012-7017938	Apr 26, 2011	Issued
Empire Technology Development LLC	China	ZL201180037763.8	201180037763.8	Apr 26, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1505757	10-2013-7004806	Feb 26, 2013	Issued
Empire Technology Development LLC	United States of America	9001033	13/791692	Mar 8, 2013	Issued
Empire Technology Development LLC	United States of America	9478070	14/690396	Apr 18, 2015	Issued
Empire Technology Development LLC	Japan	4657369	2010-038300	Feb 24, 2010	Issued
Empire Technology Development LLC	United States of America	8172266	12/770008	Apr 29, 2010	Issued
Empire Technology Development LLC	United States of America	8286998	13/439209	Apr 4, 2012	Issued
Empire Technology Development LLC	United States of America	9018335	13/139709	Jun 14, 2011	Issued
Empire Technology Development LLC	Japan	4615065	2010-036240	Feb 22, 2010	Issued
Empire Technology Development LLC	United States of America	8660679	13/139819	Jun 15, 2011	Issued
Empire Technology Development LLC	China	ZL201080069998.0	201080069998.0	Dec 2, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1458939	10-2013-7006393	Dec 2, 2010	Issued
Empire Technology Development LLC	Japan	5735128	2013-541969	Dec 2, 2010	Issued
Empire Technology Development LLC	United States of America	9215530	14/152271	Jan 10, 2014	Issued
Empire Technology Development LLC	Japan	4693192	2010-103610	Apr 28, 2010	Issued
Empire Technology Development LLC	United States of America	8125517	12/968952	Dec 15, 2010	Issued
Empire Technology Development LLC	United States of America	8487988	13/362062	Jan 31, 2012	Issued
Empire Technology Development LLC	Japan	5886435	2014-533289	Oct 7, 2011	Issued
Empire Technology Development LLC	Japan	4580037	2010-075215	Mar 29, 2010	Issued
Empire Technology Development LLC	United States of America	8808890	12/895494	Sep 30, 2010	Issued
Empire Technology Development LLC	United States of America	8990291	12/993465	Nov 18, 2010	Issued
Empire Technology Development LLC	Japan	5735095	2013-502719	Jul 21, 2010	Issued
Empire Technology Development LLC	China	ZL201080068150.6	201080068150.6	Jul 21, 2010	Issued
Empire Technology Development LLC	European Patent Office	2596431	10854991.6	Jul 21, 2010	Issued
Empire Technology Development LLC	Germany	2596431	602010038542.6	Jul 21, 2010	Issued
Empire Technology Development LLC	France	2596431	10854991.6	Jul 21, 2010	Issued
Empire Technology Development LLC	United Kingdom	2596431	10854991.6	Jul 21, 2010	Issued
Empire Technology Development LLC	European Patent Office	2598461	10855273.8	Jul 30, 2010	Issued
Empire Technology Development LLC	Japan	5736454	2013-519220	Jul 30, 2010	Issued
Empire Technology Development LLC	France	2598461	10855273.8	Jul 30, 2010	Issued
Empire Technology Development LLC	Germany	2598461	602010029618.0	Jul 30, 2010	Issued
Empire Technology Development LLC	United Kingdom	2598461	10855273.8	Jul 30, 2010	Issued
Empire Technology Development LLC	Japan	4580038	2010-102141	Apr 27, 2010	Issued

Empire Technology Development LLC	United States of America	8097352	12/895544	Sep 30, 2010	Issued
Empire Technology Development LLC	United States of America	8866066	13/062496	Mar 4, 2011	Issued
Empire Technology Development LLC	Japan	4668349	2010-075351	Mar 29, 2010	Issued
Empire Technology Development LLC	United States of America	8633727	12/968984	Dec 15, 2010	Issued
Empire Technology Development LLC	United States of America	8732436	12/993094	Nov 17, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1526515	10-2013-7002802	Jul 2, 2010	Issued
Empire Technology Development LLC	Japan	5787909	2012-558123	Jul 2, 2010	Issued
Empire Technology Development LLC	United States of America	8871637	13/122957	Apr 6, 2011	Issued
Empire Technology Development LLC	Japan	5763775	2013-536586	Nov 2, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1475852	10-2013-7013678	Nov 2, 2010	Issued
Empire Technology Development LLC	United States of America	8615864	13/000421	Dec 21, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1472470	10-2013-7009207	Sep 14, 2010	Issued
Empire Technology Development LLC	Japan	5631496	2013-528177	Sep 14, 2010	Issued
Empire Technology Development LLC	China	ZL201080069099.0	201080069099.0	Sep 14, 2010	Issued
Empire Technology Development LLC	United States of America	9160043	14/083279	Nov 18, 2013	Issued
Empire Technology Development LLC	United States of America	9256379	13/124558	Apr 15, 2011	Issued
Empire Technology Development LLC	United States of America	8758916	13/062516	Mar 6, 2011	Issued
Empire Technology Development LLC	Japan	5721847	2013-536576	Oct 29, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1526516	10-2013-7013277	Oct 29, 2010	Issued
Empire Technology Development LLC	United States of America	8483811	13/000127	Dec 20, 2010	Issued
Empire Technology Development LLC	United States of America	8379412	12/999628	Dec 16, 2010	Issued
Empire Technology Development LLC	Japan	5202653	2010-549955	Aug 16, 2010	Issued
Empire Technology Development LLC	China	ZL201080068551.1	201080068551.1	Aug 16, 2010	Issued
Empire Technology Development LLC	United States of America	8416573	13/122877	Apr 6, 2011	Issued
Empire Technology Development LLC	China	ZL201080068558.3	201080068558.3	Aug 10, 2010	Issued
Empire Technology Development LLC	United States of America	8907220	13/122961	Apr 6, 2011	Issued
Empire Technology Development LLC	European Patent Office	11859101.5		Feb 24, 2011	Marked for Impairing
Empire Technology Development LLC	United States of America	8813184	13/260154	Sep 23, 2011	Issued
Empire Technology Development LLC	Japan	5587492	2013-501271	Feb 24, 2011	Issued
Empire Technology Development LLC	China	ZL201180059321.3	201180059321.3	Feb 24, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1463362	10-2013-7010513	Feb 24, 2011	Issued
Empire Technology Development LLC	United States of America	9361450	14/460227	Aug 14, 2014	Issued
Empire Technology Development LLC	United States of America	9012205	13/264977	Oct 17, 2011	Issued
Empire Technology Development LLC	United States of America	8252238	13/143715	Jul 7, 2011	Issued
Empire Technology Development LLC	United States of America	8354061	13/552325	Jul 18, 2012	Issued
Empire Technology Development LLC	China	ZL201080069796.6	201080069796.6	Nov 1, 2010	Issued



Empire Technology Development LLC	United States of America	8920537 13/148174	Aug 5, 2011	Issued
Empire Technology Development LLC	China	ZL201180067657.4	201180067657.4	Apr 8, 2011
Empire Technology Development LLC	Japan	6093754	2014-502530	Apr 8, 2011
Empire Technology Development LLC	United States of America	8845785 13/262898	201080070120.9	Oct 4, 2011
Empire Technology Development LLC	China	ZL201080070120.9	201080070120.9	Nov 26, 2010
Empire Technology Development LLC	United States of America	9403114 14/310034	201180055271.1	Jun 20, 2014
Empire Technology Development LLC	United States of America	8182712 13/133614	201180055271.1	Jun 8, 2011
Empire Technology Development LLC	China	ZL201180055271.1	201180055271.1	Jan 12, 2011
Empire Technology Development LLC	United States of America	8529640 13/577729	2011-505308	Aug 8, 2012
Empire Technology Development LLC	Japan	5180368	2011-505308	Oct 4, 2010
Empire Technology Development LLC	United States of America	9087351 13/127301	201080069490.0	May 3, 2011
Empire Technology Development LLC	China	ZL201080069490.0	201080069490.0	Oct 4, 2010
Empire Technology Development LLC	Republic of Korea	10-1314201	10-2013-7010166	Oct 4, 2010
Empire Technology Development LLC	United States of America	8177913 13/119731	8530402 13/445254	Mar 18, 2011
Empire Technology Development LLC	United States of America	8530402 13/445254	8993494 13/144544	Apr 12, 2012
Empire Technology Development LLC	United States of America	8993494 13/144544	9030466 13/122912	Jul 14, 2011
Empire Technology Development LLC	United States of America	9030466 13/122912	2011-527918	Apr 6, 2011
Empire Technology Development LLC	Japan	5536071	2011-527918	Oct 5, 2010
Empire Technology Development LLC	China	ZL201080067567.0	201080067567.0	Oct 5, 2010
Empire Technology Development LLC	Republic of Korea	10-1494066	10-2012-7032859	Oct 5, 2010
Empire Technology Development LLC	United States of America	9746319 14/660769	BR1120130083131	Oct 5, 2010
Empire Technology Development LLC	Brazil	BR1120130083131	2000-035119	Mar 17, 2015
Empire Technology Development LLC	Japan	4139882	2000-035119	Oct 5, 2010
Empire Technology Development LLC	United States of America	6488908 09/652011	6994947 10/084480	Feb 14, 2000
Empire Technology Development LLC	United States of America	6994947 10/084480	2002-055387	Aug 31, 2000
Empire Technology Development LLC	Japan	3605642	2002-055387	Feb 28, 2002
Empire Technology Development LLC	Japan	4016101	2002-242208	Mar 1, 2002
Empire Technology Development LLC	United States of America	6950332 10/639471	03018621.7	Aug 22, 2002
Empire Technology Development LLC	European Patent Office	1391894	03018621.7	Aug 13, 2003
Empire Technology Development LLC	Republic of Korea	10-0563423	10-2003-0058006	Aug 21, 2003
Empire Technology Development LLC	Germany	1391894	60342129.6	Aug 19, 2003
Empire Technology Development LLC	France	1391894	03018621.7	Aug 19, 2003
Empire Technology Development LLC	United Kingdom	1391894	03018621.7	Aug 19, 2003
Empire Technology Development LLC	Netherlands	1391894	03018621.7	Aug 19, 2003
Empire Technology Development LLC	Japan	3893456	2002-304124	Oct 18, 2002
Empire Technology Development LLC	United States of America	6940750 10/680157	2002-304124	Oct 8, 2003

Empire Technology Development LLC	European Patent Office	1411525	03022959.5	Oct 9, 2003	Issued
Empire Technology Development LLC	Republic of Korea	10-0519898	10-2003-0071849	Oct 15, 2003	Issued
Empire Technology Development LLC	Germany	1411525	60323801.7	Oct 9, 2003	Issued
Empire Technology Development LLC	Spain	1411525	03022959.5	Oct 9, 2003	Issued
Empire Technology Development LLC	France	1411525	03022959.5	Oct 9, 2003	Issued
Empire Technology Development LLC	United Kingdom	1411525	03022959.5	Oct 9, 2003	Issued
Empire Technology Development LLC	Italy	1411525	502008901665658	Oct 9, 2003	Issued
Empire Technology Development LLC	Japan	3987924	2002-362200	Dec 13, 2002	Issued
Empire Technology Development LLC	European Patent Office	1429351	03027820.4	Dec 3, 2003	Issued
Empire Technology Development LLC	Republic of Korea	10-0526280	10-2003-0089964	Dec 11, 2003	Issued
Empire Technology Development LLC	Germany	1429351	60347931.6	Dec 3, 2003	Issued
Empire Technology Development LLC	France	1429351	03027820.4	Dec 3, 2003	Issued
Empire Technology Development LLC	United Kingdom	1429351	03027820.4	Dec 3, 2003	Issued
Empire Technology Development LLC	United States of America	8932502	13/143173	Jul 1, 2011	Issued
Empire Technology Development LLC	China	ZL201180060973.9	201180060973.9	Feb 16, 2011	Issued
Empire Technology Development LLC	Japan	5654693	2013-553414	Feb 16, 2011	Issued
Empire Technology Development LLC	United States of America	10028396	14/562533	Dec 5, 2014	Issued
Empire Technology Development LLC	United States of America	8831392	13/320733	Nov 15, 2011	Issued
Empire Technology Development LLC	United States of America	8561372	13/519296	Jun 26, 2012	Issued
Empire Technology Development LLC	United States of America	9365449	13/421947	Mar 16, 2012	Issued
Empire Technology Development LLC	United States of America	8985888	13/379211	Dec 19, 2011	Issued
Empire Technology Development LLC	United States of America	8920657	13/203966	Aug 30, 2011	Issued
Empire Technology Development LLC	China	ZL201180070176.9	201180070176.9	Apr 18, 2011	Issued
Empire Technology Development LLC	United States of America	9199864	13/395540	Mar 12, 2012	Issued
Empire Technology Development LLC	United States of America	9151969	13/704329	Dec 14, 2012	Issued
Empire Technology Development LLC	United States of America	8811781	13/143096	Jul 1, 2011	Issued
Empire Technology Development LLC	United States of America	9004817	13/142372	Jun 27, 2011	Issued
Empire Technology Development LLC	United States of America	8922355	13/143093	Jul 1, 2011	Issued
Empire Technology Development LLC	Japan	5536237	2012-552882	Jan 13, 2011	Issued
Empire Technology Development LLC	China	ZL201180058828.7	201180058828.7	Jan 13, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1486400	10-2013-7014346	Jan 13, 2011	Issued
Empire Technology Development LLC	United States of America	8288459	13/126155	Apr 26, 2011	Issued
Empire Technology Development LLC	United States of America	9489384	13/992737	Jun 8, 2013	Issued
Empire Technology Development LLC	United States of America	9210304	14/002981	Sep 3, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1629881	10-2014-7028994	Mar 16, 2012	Issued
Empire Technology Development LLC	United States of America	8413462	13/132890	Jun 3, 2011	Issued

Empire Technology Development LLC	China	ZL201180065154.3	201180065154.3	Mar 7, 2011	Issued
Empire Technology Development LLC	Japan	5563170	2013-557672	Mar 7, 2011	Issued
Empire Technology Development LLC	United States of America	8830791	13/256670	Sep 15, 2011	Issued
Empire Technology Development LLC	Japan	6185838	2013-512627	Apr 27, 2011	Issued
Empire Technology Development LLC	United States of America	9267585	13/823193	Mar 14, 2013	Issued
Empire Technology Development LLC	United States of America	8938070	13/395119	Mar 8, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1497386	10-2013-7024140	May 24, 2011	Issued
Empire Technology Development LLC	United States of America	9270452	14/517094	Oct 17, 2014	Issued
Empire Technology Development LLC	United States of America	9575271	14/000198	Apr 14, 2014	Issued
Empire Technology Development LLC	United States of America	8947356	13/254635	Sep 2, 2011	Issued
Empire Technology Development LLC	China	ZL201180053820.1	201180053820.1	Mar 31, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1473598	10-2013-7011126	Mar 31, 2011	Issued
Empire Technology Development LLC	Japan	5638152	2013-546102	Mar 31, 2011	Issued
Empire Technology Development LLC	China	ZL201180073257.4	201180073257.4	Sep 13, 2011	Issued
Empire Technology Development LLC	Japan	5844907	2014-528367	Sep 13, 2011	Issued
Empire Technology Development LLC	United States of America	13/879,457		Apr 15, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9147918	13/264981	Oct 17, 2011	Issued
Empire Technology Development LLC	Japan	5845277	2013-538711	May 27, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1533674	10-2013-7016663	May 27, 2011	Issued
Empire Technology Development LLC	China	ZL201180048492.6	201180048492.6	May 27, 2011	Issued
Empire Technology Development LLC	European Patent Office	11866884.7		May 27, 2011	Published
Empire Technology Development LLC	United States of America	8444922	13/148919	Aug 10, 2011	Issued
Empire Technology Development LLC	United States of America	8703062	13/860432	Apr 10, 2013	Issued
Empire Technology Development LLC	China	ZL201180070413.1	201180070413.1	May 2, 2011	Issued
Empire Technology Development LLC	United States of America	9711134	13/522299	Jul 13, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1611224	10-2014-7008642	Nov 21, 2011	Issued
Empire Technology Development LLC	European Patent Office	11876267.3		Nov 21, 2011	Published
Empire Technology Development LLC	United States of America	9539586	13/641095	Oct 12, 2012	Issued
Empire Technology Development LLC	United States of America	8941605	13/388663	Feb 2, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1504137	10-2013-7033798	Jun 16, 2011	Issued
Empire Technology Development LLC	Japan	5717308	2014-515794	Jun 16, 2011	Issued
Empire Technology Development LLC	United States of America	9800657	13/503690	Apr 24, 2012	Issued
Empire Technology Development LLC	Japan	5852739	2014-525975	Aug 16, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1584329	10-2014-7005208	Aug 16, 2011	Issued
Empire Technology Development LLC	United States of America	8889262	13/878733	Apr 10, 2013	Issued
Empire Technology Development LLC	United States of America	9260574	13/514036	Jun 5, 2012	Issued

Empire Technology Development LLC	China	ZL201180073350.5	201180073350.5	Oct 18, 2011	Issued
Empire Technology Development LLC	Japan	6215211	2014-535707	Oct 18, 2011	Issued
Empire Technology Development LLC	United States of America	8628837	13/518840	Jun 22, 2012	Issued
Empire Technology Development LLC	United States of America	8741415	14/054195	Oct 15, 2013	Issued
Empire Technology Development LLC	United States of America	8916263	14/293448	Jun 2, 2014	Issued
Empire Technology Development LLC	United States of America	9103066	14/565894	Dec 10, 2014	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1564914	102104591	Feb 6, 2013	Issued
Empire Technology Development LLC	United States of America		13/641,843	Oct 17, 2012	Marked for Impairing
Empire Technology Development LLC	United States of America		8887255 13/522932	Jul 18, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1647911	10-2014-7023777	Mar 16, 2012	Issued
Empire Technology Development LLC	China	ZL201280071313.5	201280071313.5	Mar 16, 2012	Issued
Empire Technology Development LLC	United States of America	9305158	14/510027	Oct 8, 2014	Issued
Empire Technology Development LLC	United States of America	9727847	14/110442	Oct 8, 2013	Issued
Empire Technology Development LLC	China	ZL201180070351.4	201180070351.4	Jun 14, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1799622	10-2013-7021427	Jun 14, 2011	Issued
Empire Technology Development LLC	Japan	5925293	2014-503642	Jun 14, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1780161	10-2016-7005476	Feb 29, 2016	Issued
Empire Technology Development LLC	United States of America	8992122	13/504473	Apr 26, 2012	Issued
Empire Technology Development LLC	China	ZL201180073504.0	201180073504.0	Oct 12, 2011	Issued
Empire Technology Development LLC	Japan	5914670	2014-533290	Oct 12, 2011	Issued
Empire Technology Development LLC	European Patent Office		11873895.4	Oct 14, 2011	Allowed
Empire Technology Development LLC	United States of America	9037197	13/981495	Jul 24, 2013	Issued
Empire Technology Development LLC	China	ZL201180074158.8	201180074158.8	Oct 14, 2011	Issued
Empire Technology Development LLC	Japan	5847931	2014-516527	Oct 14, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1605353	10-2014-7012641	Oct 14, 2011	Issued
Empire Technology Development LLC	United States of America	8845233	13/517974	Jun 20, 2012	Issued
Empire Technology Development LLC	China	ZL201180073692.7	201180073692.7	Oct 13, 2011	Issued
Empire Technology Development LLC	Japan	5881834	2014-535700	Oct 13, 2011	Issued
Empire Technology Development LLC	United States of America	8892731	13/266579	Oct 27, 2011	Issued
Empire Technology Development LLC	China	ZL201180072411.6	201180072411.6	Aug 29, 2011	Issued
Empire Technology Development LLC	Japan	6025821	2014-507282	Aug 29, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1568620	10-2014-7001458	Aug 29, 2011	Issued
Empire Technology Development LLC	United States of America	9413848	14/540192	Nov 13, 2014	Issued
Empire Technology Development LLC	United States of America	9667744	15/170131	Jun 1, 2016	Issued
Empire Technology Development LLC	European Patent Office	17210102.4		Aug 29, 2011	Published
Empire Technology Development LLC	United States of America	9409318	13/640781	Oct 12, 2012	Issued

Empire Technology Development LLC	China	ZL201280072547.1	201280072547.1	Apr 23, 2012	Issued
Empire Technology Development LLC	United States of America		15/011,721	Feb 1, 2016	Allowed
Empire Technology Development LLC	United States of America	9292526	13/642689	Oct 22, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1666883	10-2014-7016503	Feb 24, 2012	Issued
Empire Technology Development LLC	Japan	5923626	2014-557617	Feb 24, 2012	Issued
Empire Technology Development LLC	United States of America		8880639	Mar 22, 2012	Issued
Empire Technology Development LLC	United States of America		9838892	Oct 17, 2014	Issued
Empire Technology Development LLC	United States of America		15/830,280	Dec 4, 2017	Published
Empire Technology Development LLC	United States of America		8929896	Oct 12, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1576193	10-2014-7016466	Feb 24, 2012	Issued
Empire Technology Development LLC	China	ZL201280048446.0	201280048446.0	Feb 24, 2012	Issued
Empire Technology Development LLC	Japan	5941167	2014-557616	Feb 24, 2012	Issued
Empire Technology Development LLC	China		201710823665.6	Feb 24, 2012	Published
Empire Technology Development LLC	United States of America	9348808	13/519308	Jun 26, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1613155	10-2014-7018984	Dec 12, 2011	Issued
Empire Technology Development LLC	Japan	6033326	2014-547149	Dec 12, 2011	Issued
Empire Technology Development LLC	United States of America		15/093,702	Apr 7, 2016	Published
Empire Technology Development LLC	United States of America	9373427	13/582009	Aug 30, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1517505	102107591	Mar 5, 2013	Issued
Empire Technology Development LLC	China	ZL201280071112.5	201280071112.5	Mar 5, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1713791	10-2014-7028075	Mar 5, 2012	Issued
Empire Technology Development LLC	United States of America	10005944	13/809539	Jan 10, 2013	Issued
Empire Technology Development LLC	China		201280075130.0	Aug 16, 2012	Published
Empire Technology Development LLC	United States of America	9019584	13/577508	Aug 7, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1502294	102108497	Mar 11, 2013	Issued
Empire Technology Development LLC	United States of America	9233304	13/426868	Mar 22, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1593464	10-2013-0030940	Mar 22, 2013	Issued
Empire Technology Development LLC	Japan	5806248	2013-043376	Mar 5, 2013	Issued
Empire Technology Development LLC	Japan	6207558	2015-173473	Mar 5, 2013	Issued
Empire Technology Development LLC	United States of America	9121985	13/582710	Sep 3, 2015	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1521275	102107840	Sep 4, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1621782	10-2014-7027875	Mar 6, 2013	Issued
Empire Technology Development LLC	China		201280071203.9	Mar 8, 2012	Issued
Empire Technology Development LLC	United States of America	9610575	13/880034	Mar 8, 2012	Issued
Empire Technology Development LLC	China	201280076463.5		Mar 8, 2012	Marked for Impairing
Empire Technology Development LLC	United States of America	8901593	13/881144	Apr 17, 2013	Issued
				Aug 16, 2012	Marked for Impairing
				Apr 23, 2013	Issued

Empire Technology Development LLC	Taiwan R.O.C.	1564265	102125262	Jul 15, 2013	Issued
Empire Technology Development LLC	United States of America	9092469	13/703657	Dec 12, 2012	Issued
Empire Technology Development LLC	United States of America	9424331	14/728740	Jun 2, 2015	Issued
Empire Technology Development LLC	United States of America	8851384	13/514012	Jun 5, 2012	Issued
Empire Technology Development LLC	China	ZL201180075310.4	201180075310.4	Dec 13, 2011	Issued
Empire Technology Development LLC	Japan	5878642	2014-544716	Dec 13, 2011	Issued
Empire Technology Development LLC	United States of America	8740703	13/642115	Oct 18, 2012	Issued
Empire Technology Development LLC	United States of America	8956038	13/575367	Jul 26, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1537527	102106110	Feb 22, 2013	Issued
Empire Technology Development LLC	United States of America	9183346	13/702934	Dec 7, 2012	Issued
Empire Technology Development LLC	United States of America	9738336	14/805364	Jul 21, 2015	Issued
Empire Technology Development LLC	United States of America	9124730	13/519303	Jun 26, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1579016	10-2014-7010262	Dec 16, 2011	Issued
Empire Technology Development LLC	China	ZL201180073872.5	201180073872.5	Dec 16, 2011	Issued
Empire Technology Development LLC	Japan	6067041	2015-029290	Feb 18, 2015	Issued
Empire Technology Development LLC	United States of America	9116260	13/879244	Apr 12, 2013	Issued
Empire Technology Development LLC	China	ZL201280072293.3	201280072293.3	Apr 10, 2012	Issued
Empire Technology Development LLC	United States of America	9372209	13/641242	Oct 15, 2012	Issued
Empire Technology Development LLC	China	ZL201280072570.0	201280072570.0	Apr 24, 2012	Issued
Empire Technology Development LLC	United States of America	9413044	13/641288	Oct 15, 2012	Issued
Empire Technology Development LLC	China	ZL201280073729.0	201280073729.0	Jun 4, 2012	Issued
Empire Technology Development LLC	United States of America	8675146	13/583779	Sep 10, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1540374	102120561	Jun 10, 2013	Issued
Empire Technology Development LLC	China	ZL201280073943.6	201280073943.6	Jun 12, 2012	Issued
Empire Technology Development LLC	United States of America	9182545	14/009098	Sep 30, 2013	Issued
Empire Technology Development LLC	United States of America	9025005	13/989792	May 25, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1659360	10-2014-7035638	May 30, 2012	Issued
Empire Technology Development LLC	United States of America	8891146	13/881731	Apr 26, 2013	Issued
Empire Technology Development LLC	United States of America	9494919	14/541161	Nov 14, 2014	Issued
Empire Technology Development LLC	China	ZL201280076593.9	201280076593.9	Aug 23, 2012	Issued
Empire Technology Development LLC	United States of America	8554649	13/576383	Jul 31, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1641009	10-2014-7020808	Mar 21, 2012	Issued
Empire Technology Development LLC	China	201280070200.3	201280070200.3	Mar 21, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1741381	10-2016-7018784	Jul 12, 2016	Issued
Empire Technology Development LLC	China		2018109701700	Mar 21, 2012	Pending
Empire Technology Development LLC	United States of America	9133389	13/988304	May 17, 2013	Issued



Empire Technology Development LLC	Taiwan R.O.C.	1535819	102136358	Oct 8, 2013	Issued
Empire Technology Development LLC	United States of America	8905838	13/533774	Jun 26, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1547725	10-2013-0044311	Apr 22, 2013	Issued
Empire Technology Development LLC	Japan	5616999	2013-078020	Apr 3, 2013	Issued
Empire Technology Development LLC	United States of America	9268157	13/824276	Mar 15, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1532034	102135560	Oct 1, 2013	Issued
Empire Technology Development LLC	United States of America	9411090	13/977318	Jun 28, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1604250	102136359	Oct 8, 2013	Issued
Empire Technology Development LLC	United States of America	9423770	13/990427	May 30, 2013	Issued
Empire Technology Development LLC	China	ZL201280077034.X	201280077034.X	Nov 13, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1586921	102120921	Jun 13, 2013	Issued
Empire Technology Development LLC	China	ZL 201280074314.5	201280074314.5	Jun 27, 2012	Issued
Empire Technology Development LLC	United States of America	8840295	13/817803	Feb 19, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1502255	102126611	Jul 25, 2013	Issued
Empire Technology Development LLC	China	ZL201280074906.7	201280074906.7	Jul 25, 2012	Issued
Empire Technology Development LLC	India	0410/CHENP/2015	14/435,205	Jul 25, 2012	Published
Empire Technology Development LLC	United States of America	9044761	13/819793	Apr 13, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	10002027	13/697294	Feb 28, 2013	Issued
Empire Technology Development LLC	United States of America	ZL201280074649.7	201280074649.7	Nov 9, 2012	Issued
Empire Technology Development LLC	China	9212806	13/979994	Jul 11, 2012	Issued
Empire Technology Development LLC	United States of America	9436020	13/980027	Jul 16, 2013	Issued
Empire Technology Development LLC	United States of America	9207390	13/817775	Feb 19, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1483010	102120708	Jun 11, 2013	Issued
Empire Technology Development LLC	China	ZL201280073791.X	201280073791.X	Jun 14, 2012	Issued
Empire Technology Development LLC	United States of America	9046998	13/813333	Jan 30, 2013	Issued
Empire Technology Development LLC	United States of America	9996247	14/706393	May 7, 2015	Issued
Empire Technology Development LLC	United States of America	9361378	13/820714	Mar 4, 2013	Issued
Empire Technology Development LLC	Japan	5968535	2015-520136	Jun 27, 2012	Issued
Empire Technology Development LLC	United States of America	15/137,301		Apr 25, 2016	Published
Empire Technology Development LLC	United States of America	9156994	13/641565	Oct 16, 2012	Issued
Empire Technology Development LLC	United States of America	9158593	13/885394	May 14, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1570628	102146750	Dec 17, 2013	Issued
Empire Technology Development LLC	China	201280077761.6		Dec 17, 2012	Published
Empire Technology Development LLC	United States of America	9926463	14/781551	Sep 30, 2015	Issued
Empire Technology Development LLC	United States of America	9204993	13/991405	Jun 3, 2013	Issued

Empire Technology Development LLC	United States of America	9887271	14/908899	Jan 29, 2016	Issued
Empire Technology Development LLC	China	ZL201380078239.4	201380078239.4	Jul 31, 2013	Issued
Empire Technology Development LLC	United States of America	9302178	13/878512	Apr 9, 2013	Issued
Empire Technology Development LLC	United States of America	9427666	15/014072	Feb 3, 2016	Issued
Empire Technology Development LLC	United States of America	9979609	13/809012	Jan 8, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1795333	10-2016-7032316	Nov 18, 2016	Issued
Empire Technology Development LLC	United States of America	9507782	13/814654	Feb 6, 2013	Issued
Empire Technology Development LLC	China	ZL201280075221.4	201280075221.4	Aug 14, 2012	Issued
Empire Technology Development LLC	United States of America	15/290,110		Oct 11, 2016	Published
Empire Technology Development LLC	Taiwan R.O.C.	1529676	103120198	Jun 11, 2014	Issued
Empire Technology Development LLC	China	ZL 2013800768433	201380076843.3	Jun 11, 2013	Issued
Empire Technology Development LLC	United States of America	9582509	13/808418	Oct 28, 2015	Published
Empire Technology Development LLC	China	ZL201280075316.6	201280075316.6	Jan 4, 2013	Issued
Empire Technology Development LLC	United States of America	9279791	13/994094	Aug 21, 2012	Issued
Empire Technology Development LLC	United States of America	9164121	13/980577	Jun 13, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1516846	103112640	Jul 19, 2013	Issued
Empire Technology Development LLC	United States of America	9910315	14/889556	Apr 7, 2014	Issued
Empire Technology Development LLC	China	ZL2013800763730	201380076373.0	Nov 6, 2015	Issued
Empire Technology Development LLC	United States of America	9939412	14/766365	May 8, 2013	Issued
Empire Technology Development LLC	United States of America	15/115,012		Aug 6, 2015	Issued
Empire Technology Development LLC	United States of America	10001585	13/992218	Jul 28, 2016	Published
Empire Technology Development LLC	Taiwan R.O.C.	1532820	103102967	Jun 6, 2013	Issued
Empire Technology Development LLC	United States of America	9759855	14/769285	Jan 27, 2014	Issued
Empire Technology Development LLC	United States of America	14/909,033		Aug 20, 2015	Issued
Empire Technology Development LLC	United States of America	14/650,555		Jan 29, 2016	Published
Empire Technology Development LLC	United States of America	15/309,179		Jun 8, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9335737	13/992745	Nov 4, 2016	Published
Empire Technology Development LLC	China	ZL201280077036.9	201280077036.9	Jun 9, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1530737	103115107	Nov 15, 2012	Issued
Empire Technology Development LLC	United States of America	9933647	14/786473	Apr 28, 2014	Issued
Empire Technology Development LLC	United States of America	9261730	14/004653	Oct 22, 2015	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1547207	102141684	Sep 11, 2013	Issued
Empire Technology Development LLC	China	ZL 2013800735603	201380073560.3	Nov 15, 2013	Issued
Empire Technology Development LLC	Japan	6261717	2016-508928	Jan 3, 2013	Issued
Empire Technology Development LLC	Republic of Korea		10-2015-7032975	Apr 19, 2013	Issued
				Apr 19, 2013	Marked for Impairing



Empire Technology Development LLC	United States of America	9191208	13/995312	Jun 18, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1539194	103114410	Apr 21, 2014	Issued
Empire Technology Development LLC	United States of America	9252321	14/349656	Apr 3, 2014	Issued
Empire Technology Development LLC	China	ZL201380075855.4	201380075855.4	Apr 22, 2013	Issued
Empire Technology Development LLC	United States of America	9740840	14/771873	Sep 1, 2015	Issued
Empire Technology Development LLC	United States of America	9862902	14/906530	Jan 20, 2016	Issued
Empire Technology Development LLC	China	ZL201380078553.2	201380078553.2	Aug 1, 2013	Issued
Empire Technology Development LLC	United States of America	14/784,535	14/784,535	Oct 14, 2015	Published
Empire Technology Development LLC	United States of America	9967800	14/118315	Nov 18, 2013	Issued
Empire Technology Development LLC	China	201380076984.5	201380076984.5	May 30, 2013	Issued
Empire Technology Development LLC	Japan	6110024	2016-516489	May 30, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1752305	10-2015-7037070	May 30, 2013	Issued
Empire Technology Development LLC	United States of America	15/973,452	15/973,452	May 7, 2018	Marked for Impairing
Empire Technology Development LLC	European Patent Office	13885479.9	13885479.9	May 30, 2013	Published
Empire Technology Development LLC	United States of America	9591691	13/922780	Jun 20, 2013	Issued
Empire Technology Development LLC	Japan	2014-125824	2014-125824	Jun 18, 2014	Published
Empire Technology Development LLC	United States of America	15/449,019	15/449,019	Mar 3, 2017	Published
Empire Technology Development LLC	United States of America	15/036,369	15/036,369	May 12, 2016	Published
Empire Technology Development LLC	United States of America	14/646,031	14/646,031	May 20, 2015	Published
Empire Technology Development LLC	United States of America	9952704	15/026611	Apr 1, 2016	Issued
Empire Technology Development LLC	United States of America	10021211	14/346855	Mar 24, 2014	Issued
Empire Technology Development LLC	United States of America	15/030,880	15/030,880	Apr 21, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9847030	14/917278	Mar 8, 2016	Issued
Empire Technology Development LLC	United States of America	9236039	14/002595	Aug 30, 2013	Issued
Empire Technology Development LLC	United States of America	9734812	14/922671	Oct 26, 2015	Issued
Empire Technology Development LLC	United States of America	14/357,476	14/357,476	May 9, 2014	Marked for Impairing
Empire Technology Development LLC	Republic of Korea	10-2015-7036916	10-2015-7036916	May 30, 2013	Published
Empire Technology Development LLC	United States of America	9364138	14/115030	Oct 31, 2013	Issued
Empire Technology Development LLC	United States of America	10059327	15/106291	Jun 18, 2016	Issued
Empire Technology Development LLC	Japan	2016-541079	2016-541079	Dec 31, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9785321	14/359478	May 20, 2014	Issued
Empire Technology Development LLC	Japan	6201041	2016-516487	May 30, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1816014	10-2015-7037071	May 30, 2013	Issued
Empire Technology Development LLC	United States of America	15/115,622	15/115,622	Jul 29, 2016	Published
Empire Technology Development LLC	United States of America	14/897,216	14/897,216	Dec 9, 2015	Published
Empire Technology Development LLC	United States of America	15/121,788	15/121,788	Aug 26, 2016	Marked for Impairing

Empire Technology Development LLC	United States of America	14/916,573	Mar 4, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	14/398,014	Oct 30, 2014	Published
Empire Technology Development LLC	United States of America	15/035,758	May 11, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	14/384,979	Sep 12, 2014	Marked for Impairing
Empire Technology Development LLC	China	201380081854.0	Dec 27, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	15/122,315	Aug 29, 2016	Marked for Impairing
Empire Technology Development LLC	Japan	2016-556015	Mar 21, 2014	Issued
Empire Technology Development LLC	United States of America	15/127,009	Sep 17, 2016	Published
Empire Technology Development LLC	European Patent Office	14886465.5	Mar 21, 2014	Published
Empire Technology Development LLC	China	201380081601.3	Dec 11, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	10101529 15/037789	May 19, 2016	Issued
Empire Technology Development LLC	United States of America	9740581 14/443909	May 19, 2015	Issued
Empire Technology Development LLC	United States of America	15/122,934	Sep 1, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9939371 15/012585	Feb 1, 2016	Issued
Empire Technology Development LLC	United States of America	9985966 14/890022	Nov 9, 2015	Issued
Empire Technology Development LLC	United States of America	9734444 14/732424	Jun 5, 2015	Issued
Empire Technology Development LLC	China	201610346617.8	May 24, 2016	Published
Empire Technology Development LLC	United States of America	9735708 14/394475	Oct 15, 2014	Issued
Empire Technology Development LLC	United States of America	14/769,656	Aug 21, 2015	Published
Empire Technology Development LLC	European Patent Office	13900751.2	Dec 30, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	10038553 14/784111	Oct 13, 2015	Issued
Empire Technology Development LLC	United States of America	10058781 14/784427	Oct 14, 2015	Issued
Empire Technology Development LLC	United States of America	16/108,976	Aug 22, 2018	Pending
Empire Technology Development LLC	United States of America	15/303,841	Oct 13, 2016	Published
Empire Technology Development LLC	United States of America	14/895,637	Dec 3, 2015	Allowed
Empire Technology Development LLC	United States of America	15/121,012	Aug 23, 2016	Published
Empire Technology Development LLC	India	201617033704	Mar 3, 2014	Published
Empire Technology Development LLC	United States of America	9444797 14/327814	Jul 10, 2014	Issued
Empire Technology Development LLC	United States of America	9907506 14/284579	May 22, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1718812	May 22, 2015	Issued
Empire Technology Development LLC	Japan	6192681	May 21, 2015	Issued
Empire Technology Development LLC	United States of America	2015-103368	Dec 1, 2015	Allowed
Empire Technology Development LLC	United States of America	14/895,060	Jun 27, 2014	Issued
Empire Technology Development LLC	United States of America	9898716 14/316916	Nov 19, 2014	Issued
Empire Technology Development LLC	United States of America	9881518 14/547703	Jul 28, 2014	Issued
Empire Technology Development LLC	United States of America	9767016 14/444365	Aug 11, 2014	Issued
Empire Technology Development LLC	United States of America	9444825 14/456511		

Empire Technology Development LLC	United States of America	9855004 14/631872	Feb 26, 2015	Issued
Empire Technology Development LLC	European Patent Office	16756136.4	Feb 23, 2016	Published
Empire Technology Development LLC	United States of America	9749843 14/808172	Jul 24, 2015	Issued
Empire Technology Development LLC	United States of America	9876636 14/990028	Jan 7, 2016	Issued
Empire Technology Development LLC	United States of America	8532438 12/303686	Dec 5, 2008	Issued
Empire Technology Development LLC	United States of America	8358817 12/123121	May 19, 2008	Issued
Empire Technology Development LLC	United States of America	8736751 12/198825	Aug 26, 2008	Issued
Empire Technology Development LLC	Germany	102008060076 102008060076.8	Dec 2, 2008	Issued
Empire Technology Development LLC	Japan	4888978 2008-310397	Dec 5, 2008	Issued
Empire Technology Development LLC	China	ZL200810182919.1 200810182919.1	Dec 5, 2008	Issued
Empire Technology Development LLC	United States of America	8229928 12/395441	Feb 27, 2009	Issued
Empire Technology Development LLC	United States of America	8913563 12/366800	Feb 6, 2009	Issued
Empire Technology Development LLC	Japan	5189112 2010-005838	Jan 14, 2010	Issued
Empire Technology Development LLC	United States of America	8564667 12/545728	Aug 21, 2009	Issued
Empire Technology Development LLC	United States of America	8187553 12/766349	Apr 23, 2010	Issued
Empire Technology Development LLC	China	ZL201080063469.X 201080063469.X	Dec 16, 2010	Issued
Empire Technology Development LLC	Japan	5597303 2013-501237	Dec 16, 2010	Issued
Empire Technology Development LLC	European Patent Office	10850406.9	Dec 16, 2010	Issued
Empire Technology Development LLC	United States of America	8866587 12/999130	Dec 16, 2010	Marked for Impairing
Empire Technology Development LLC	China	ZL201080067503.0 201080067503.0	Dec 15, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1409951 10-2012-7029463	Aug 17, 2010	Issued
Empire Technology Development LLC	Japan	5603493 2013-523140	Aug 17, 2010	Issued
Empire Technology Development LLC	United States of America	9570037 14/483928	Sep 11, 2014	Issued
Empire Technology Development LLC	United States of America	8885852 13/121322	Mar 28, 2011	Issued
Empire Technology Development LLC	China	ZL201080069221.4 201080069221.4	Dec 22, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1441398 10-2013-7007770	Dec 22, 2010	Issued
Empire Technology Development LLC	United States of America	8744068 13/143521	Jul 6, 2011	Issued
Empire Technology Development LLC	United States of America	8559927 13/119413	Mar 16, 2011	Issued
Empire Technology Development LLC	China	ZL201080070100.1 201080070100.1	Dec 21, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1424411 10-2013-7006116	Dec 21, 2010	Issued
Empire Technology Development LLC	United States of America	8991132 13/809884	Jan 11, 2013	Issued
Empire Technology Development LLC	United States of America	8766912 13/121791	Mar 30, 2011	Issued
Empire Technology Development LLC	China	ZL201080069222.9 201080069222.9	Dec 29, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1430887 10-2013-7006111	Dec 29, 2010	Issued
Empire Technology Development LLC	Japan	5777731 2013-547409	Dec 29, 2010	Issued
Empire Technology Development LLC	United States of America	9851804 14/297584	Jun 5, 2014	Issued

Empire Technology Development LLC	United States of America	8427427 13/123450	Apr 8, 2011	Issued
Empire Technology Development LLC	United States of America	8823748 13/863313	Apr 15, 2013	Issued
Empire Technology Development LLC	China	ZL201080069990.4	Dec 13, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-2015-7020932	Jul 31, 2015	Issued
Empire Technology Development LLC	Finland	20135264	Dec 13, 2010	Pending
Empire Technology Development LLC	Republic of Korea	10-2015-7002582	Feb 24, 2011	Allowed
Empire Technology Development LLC	China	ZL201180052752.7	Feb 24, 2011	Issued
Empire Technology Development LLC	United States of America	13/132,224	Jun 1, 2011	Published
Empire Technology Development LLC	United States of America	8543085 13/142054	Jun 24, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1425333	Mar 30, 2011	Issued
Empire Technology Development LLC	Japan	5568193	Mar 30, 2011	Issued
Empire Technology Development LLC	United States of America	9266019 13/511844	May 24, 2012	Issued
Empire Technology Development LLC	Japan	5388392	Jul 1, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1748767	Jul 1, 2011	Issued
Empire Technology Development LLC	China	ZL201180072043.5	Jul 1, 2011	Issued
Empire Technology Development LLC	United States of America	9823740 14/982184	Dec 29, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1765214	Dec 18, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1529262	Jul 1, 2011	Issued
Empire Technology Development LLC	United States of America	9390318 13/805286	Dec 18, 2012	Issued
Empire Technology Development LLC	China	10-1566807	Aug 31, 2011	Issued
Empire Technology Development LLC	China	ZL201180073081.2	Aug 31, 2011	Issued
Empire Technology Development LLC	Japan	5823042	Aug 31, 2011	Issued
Empire Technology Development LLC	United States of America	9008609 13/503813	Apr 24, 2012	Issued
Empire Technology Development LLC	China	ZL201180072810.2	Aug 12, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1554196	Aug 12, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1671054	Sep 28, 2011	Issued
Empire Technology Development LLC	Japan	6082742	Sep 28, 2011	Issued
Empire Technology Development LLC	United States of America	9037090 13/700078	Nov 26, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1609494	Feb 7, 2012	Issued
Empire Technology Development LLC	China	ZL201280050763.6	Feb 7, 2012	Issued
Empire Technology Development LLC	United States of America	9430075 14/701460	Apr 30, 2015	Issued
Empire Technology Development LLC	United States of America	8931062 13/505650	May 2, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1502385	Nov 10, 2011	Issued
Empire Technology Development LLC	China	ZL201180073315.3	Nov 10, 2011	Issued
Empire Technology Development LLC	Japan	5851046	Nov 10, 2011	Issued
Empire Technology Development LLC	United States of America	8976249 13/695356	Oct 30, 2012	Issued

Empire Technology Development LLC	Republic of Korea	10-1566812	10-2014-7008709	Nov 4, 2011	Issued
Empire Technology Development LLC	China	ZL201180074630.8	201180074630.8	Nov 4, 2011	Issued
Empire Technology Development LLC	Japan	6178321	2014-535708	Nov 4, 2011	Issued
Empire Technology Development LLC	United States of America	9398288	14/611952	Feb 2, 2015	Issued
Empire Technology Development LLC	United States of America	8843793	13/503827	Apr 24, 2012	Issued
Empire Technology Development LLC	United States of America	8684821	13/805464	Dec 19, 2012	Issued
Empire Technology Development LLC	United States of America	9220980	14/175232	Feb 7, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1575121	10-2014-7013571	Dec 19, 2011	Issued
Empire Technology Development LLC	China	ZL201180075326.5	201180075326.5	Dec 19, 2011	Issued
Empire Technology Development LLC	Japan	5851048	2014-548637	Dec 19, 2011	Issued
Empire Technology Development LLC	United States of America	9558292	13/577411	Aug 6, 2012	Issued
Empire Technology Development LLC	China	ZL201280072285.9	201280072285.9	Apr 10, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1767428	10-2016-7021129	Aug 2, 2016	Issued
Empire Technology Development LLC	United States of America	15/387,874		Dec 22, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	8913498	13/580225	Aug 21, 2012	Issued
Empire Technology Development LLC	United States of America	8790179	13/636794	Sep 24, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1516245	10-2014-7013568	Feb 24, 2012	Issued
Empire Technology Development LLC	China	ZL201280059049.3	201280059049.3	Feb 24, 2012	Issued
Empire Technology Development LLC	Japan	5807130	2014-558720	Feb 24, 2012	Issued
Empire Technology Development LLC	United States of America	9066225	13/989720	May 24, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1867600	10-2014-7032897	Apr 24, 2012	Issued
Empire Technology Development LLC	United States of America	9164892	13/977262	Jun 28, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1621788	10-2012-7005243	Jul 30, 2012	Issued
Empire Technology Development LLC	United States of America	8769193	13/809384	Jan 9, 2013	Issued
Empire Technology Development LLC	United States of America	9158680	14/304788	Jun 13, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1695341	10-2014-7033735	Apr 30, 2012	Issued
Empire Technology Development LLC	China	ZL201280072814.5	201280072814.5	Apr 30, 2012	Issued
Empire Technology Development LLC	European Patent Office	12871857.4		Mar 19, 2012	Allowed
Empire Technology Development LLC	United States of America	8824443	13/978553	Jul 8, 2013	Issued
Empire Technology Development LLC	United States of America	9326232	14/455043	Aug 8, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1875861	10-2014-7029329	Mar 19, 2012	Issued
Empire Technology Development LLC	Japan	6067096	2015-501551	Mar 19, 2012	Issued
Empire Technology Development LLC	United States of America	9750064	15/067890	Mar 11, 2016	Issued
Empire Technology Development LLC	China	201280071611.4		Mar 19, 2012	Published
Empire Technology Development LLC	United States of America	9083638	13/576265	Jul 31, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1630215	10-2014-7012966	Feb 10, 2012	Issued

Empire Technology Development LLC	Japan	5945006	2014-553284	Feb 10, 2012	Issued
Empire Technology Development LLC	United States of America	9906587	14/708724	May 11, 2015	Issued
Empire Technology Development LLC	United States of America	8795087	13/636801	Sep 24, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1595075	10-2014-7012969	Feb 14, 2012	Issued
Empire Technology Development LLC	China	ZL201280063166.7	201280063166.7	Feb 14, 2012	Issued
Empire Technology Development LLC	Japan	5945010	2014-556529	Feb 14, 2012	Issued
Empire Technology Development LLC	United States of America	9237115	14/305547	Jun 16, 2014	Issued
Empire Technology Development LLC	United States of America	9531797	14/884195	Oct 15, 2015	Issued
Empire Technology Development LLC	United States of America	9294335	13/642816	Oct 22, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1609812	10-2014-7031051	Apr 9, 2012	Issued
Empire Technology Development LLC	United States of America	9961146	14/972511	Dec 17, 2015	Issued
Empire Technology Development LLC	United States of America	9132350	13/697243	Nov 9, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1463323	10-2012-7032806	Feb 14, 2012	Issued
Empire Technology Development LLC	United States of America	9712566	13/575815	Jul 27, 2012	Issued
Empire Technology Development LLC	United States of America	9713765	13/635273	Sep 14, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-2014-7029330		Apr 20, 2012	Marked for Impairing
Empire Technology Development LLC	United States of America	9177652	14/235406	Jul 24, 2017	Published
Empire Technology Development LLC	Republic of Korea	10-1659922	10-2015-7004897	Jan 27, 2014	Issued
Empire Technology Development LLC	United States of America	9008578	13/700104	Jul 30, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1613158	10-2015-7000718	Nov 26, 2012	Issued
Empire Technology Development LLC	United States of America	9965130	13/701349	Jun 13, 2012	Issued
Empire Technology Development LLC	United States of America	9351222	13/534613	Nov 30, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1423250	10-2012-0114073	Jun 27, 2012	Issued
Empire Technology Development LLC	United States of America	8948091	13/996323	Oct 15, 2012	Issued
Empire Technology Development LLC	Japan	6049876	2015-521521	Jun 20, 2013	Issued
Empire Technology Development LLC	European Patent Office		12880930.8	Jul 10, 2012	Issued
Empire Technology Development LLC	United States of America	8885570	13/995840	Jul 10, 2012	Published
Empire Technology Development LLC	European Patent Office	2873293	12880845.8	Jun 19, 2013	Issued
Empire Technology Development LLC	Japan	5775651	2015-521522	Jul 11, 2012	Issued
Empire Technology Development LLC	Germany	2873293	602012023415.6	Jul 11, 2012	Issued
Empire Technology Development LLC	France	2873293	12880845.8	Jul 11, 2012	Issued
Empire Technology Development LLC	United Kingdom	2873293	12880845.8	Jul 11, 2012	Issued
Empire Technology Development LLC	United States of America	9107067	13/996724	Jun 21, 2013	Issued
Empire Technology Development LLC	China	ZL201280075738.3	201280075738.3	Sep 11, 2012	Issued
Empire Technology Development LLC	United States of America	9471574	13/805785	Dec 20, 2012	Issued



Empire Technology Development LLC	China	ZL201280074840.1	201280074840.1	Jul 24, 2012	Issued
Empire Technology Development LLC	United States of America	10078637	15/238178	Aug 16, 2016	Issued
Empire Technology Development LLC	United States of America	9241035	13/701359	Nov 30, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1630136	10-2015-7000234	Jul 6, 2012	Issued
Empire Technology Development LLC	United States of America	9331966	13/701324	Nov 30, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1614665	10-2015-7000233	Jul 6, 2012	Issued
Empire Technology Development LLC	United States of America	9942183	15/084879	Mar 30, 2016	Issued
Empire Technology Development LLC	United States of America	9298717	13/701370	Nov 30, 2012	Issued
Empire Technology Development LLC	China	ZL201280073972.2	201280073972.2	Jun 14, 2012	Issued
Empire Technology Development LLC	United States of America	9232115	13/810497	Jan 16, 2013	Issued
Empire Technology Development LLC	United States of America	9848226	14/951685	Nov 25, 2015	Issued
Empire Technology Development LLC	China	201280074709.5		Jul 17, 2012	Published
Empire Technology Development LLC	United States of America	9462502	13/825096	Mar 19, 2013	Issued
Empire Technology Development LLC	United States of America	9141588	13/996331	Jun 20, 2013	Issued
Empire Technology Development LLC	United States of America	9208473	13/878153	Apr 5, 2013	Issued
Empire Technology Development LLC	United States of America	9930001	14/926417	Oct 29, 2015	Issued
Empire Technology Development LLC	United States of America	9251804	13/878357	Apr 8, 2013	Issued
Empire Technology Development LLC	United States of America	9717005	13/885754	May 16, 2013	Issued
Empire Technology Development LLC	United States of America	9961552	14/693400	Apr 22, 2015	Issued
Empire Technology Development LLC	United States of America	15/941,476		Mar 30, 2018	Published
Empire Technology Development LLC	United States of America	15/026,606		Apr 1, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9794671	15/110466	Jul 8, 2016	Issued
Empire Technology Development LLC	United States of America	9033790	13/882493	Apr 29, 2013	Issued
Empire Technology Development LLC	United States of America	10091149	13/996290	Jun 20, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1732413	10-2015-7014293	Dec 21, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	I550401	103127046	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America	9747993	14/908340	Jan 28, 2016	Issued
Empire Technology Development LLC	China	201380078743.4	201380078743.4	Aug 13, 2013	Issued
Empire Technology Development LLC	United States of America	9622141	14/376330	Aug 1, 2014	Issued
Empire Technology Development LLC	United States of America	10039044	15/466178	Mar 22, 2017	Issued
Empire Technology Development LLC	European Patent Office	1388568.5		May 31, 2013	Published
Empire Technology Development LLC	United States of America	9569802	14/118090	Nov 15, 2013	Issued
Empire Technology Development LLC	United States of America	9510006	14/124389	Dec 6, 2013	Issued
Empire Technology Development LLC	United States of America	9817989	14/343968	Mar 10, 2014	Issued
Empire Technology Development LLC	China	201380078112.2		Jul 8, 2013	Published
Empire Technology Development LLC	United States of America	9602610	14/007635	Sep 25, 2013	Issued

Empire Technology Development LLC	United States of America	9912770	15/297434	Oct 19, 2016	Issued
Empire Technology Development LLC	United States of America	9934075	14/375902	Jul 31, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1827547	10-2016-7002238	Jun 28, 2013	Issued
Empire Technology Development LLC	United States of America	9501660	14/372925	Jul 17, 2014	Issued
Empire Technology Development LLC	United States of America	9916473	15/294868	Oct 17, 2016	Issued
Empire Technology Development LLC	United States of America	9915920	15/117730	Aug 10, 2016	Issued
Empire Technology Development LLC	United States of America	9854563	14/118707	Nov 19, 2013	Issued
Empire Technology Development LLC	Germany	112013007177.0		Jun 21, 2013	Published
Empire Technology Development LLC	United States of America	9439200	14/130018	Dec 30, 2013	Issued
Empire Technology Development LLC	United States of America	9832299	14/377388	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America	9358467	14/372340	Jul 15, 2014	Issued
Empire Technology Development LLC	United States of America	9830437	14/377410	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America	9716885	14/128692	Dec 23, 2013	Issued
Empire Technology Development LLC	United States of America	9996601	14/385015	Sep 12, 2014	Issued
Empire Technology Development LLC	United States of America	9744464	14/377612	Aug 8, 2014	Issued
Empire Technology Development LLC	United States of America	14/384,962		Sep 12, 2014	Published
Empire Technology Development LLC	United States of America	9830618	14/377393	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America	15/822,499		Nov 27, 2017	Published
Empire Technology Development LLC	United States of America	9661465	14/758595	Jun 30, 2015	Issued
Empire Technology Development LLC	United States of America	10057717	15/601135	May 22, 2017	Issued
Empire Technology Development LLC	United States of America	9971016	14/785650	Oct 20, 2015	Issued
Empire Technology Development LLC	United States of America	15/947,243		Apr 6, 2018	Published
Empire Technology Development LLC	United States of America	10104497	15/128957	Sep 23, 2016	Issued
Empire Technology Development LLC	United States of America	14/388,551		Sep 26, 2014	Marked for Impairing
Empire Technology Development LLC	Republic of Korea	10-1870371	10-2016-7024639	Feb 26, 2014	Issued
Empire Technology Development LLC	United States of America	15/308,611		Nov 3, 2016	Allowed
Empire Technology Development LLC	United States of America	15/984,367		May 20, 2018	Allowed
Empire Technology Development LLC	United States of America	9710893	14/785647	Oct 20, 2015	Issued
Empire Technology Development LLC	United States of America	9978126	15/612057	Jun 2, 2017	Issued
Empire Technology Development LLC	China	201480076696.4		Apr 30, 2014	Published
Empire Technology Development LLC	United States of America	100027466	14/888850	Nov 3, 2015	Issued
Empire Technology Development LLC	United States of America	16/035,364		Jul 13, 2018	Pending
Empire Technology Development LLC	United States of America	9730170	14/298973	Jun 9, 2014	Issued
Empire Technology Development LLC	China	201510308900.7		Jun 8, 2015	Published
Empire Technology Development LLC	United States of America	9954625	14/888861	Nov 3, 2015	Issued
Empire Technology Development LLC	United States of America	15/941,130		Mar 30, 2018	Published



Empire Technology Development LLC	United States of America	9641660	14/784595	Oct 15, 2015	Issued
Empire Technology Development LLC	United States of America	9852445	14/295936	Jun 4, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1724584	10-2015-0077833	Jun 2, 2015	Issued
Empire Technology Development LLC	United States of America	15/843,067		Dec 15, 2017	Published
Empire Technology Development LLC	United States of America	14/334,906		Jul 18, 2014	Allowed
Empire Technology Development LLC	China	201510422966.9		Jul 17, 2015	Published
Empire Technology Development LLC	United States of America	9813203	14/302434	Jun 12, 2014	Issued
Empire Technology Development LLC	China	201510320709.4		Jun 12, 2015	Published
Empire Technology Development LLC	United States of America	9646699	14/404002	Nov 25, 2014	Issued
Empire Technology Development LLC	United States of America	14/487,114		Sep 16, 2014	Allowed
Empire Technology Development LLC	Republic of Korea	10-1669525	10-2015-0130959	Sep 16, 2015	Issued
Empire Technology Development LLC	China	201510590527.9		Sep 16, 2015	Published
Empire Technology Development LLC	United States of America	14/430,757		Mar 24, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	15/545,448		Jul 21, 2017	Published
Empire Technology Development LLC	Republic of Korea	10-1871032	10-2015-0159735	Nov 13, 2015	Issued
Empire Technology Development LLC	United States of America	14/574,068		Dec 17, 2014	Published
Empire Technology Development LLC	United States of America	10037612	14/980692	Dec 28, 2015	Issued
Empire Technology Development LLC	United States of America	15/157,557		May 18, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9347475	14/110919	Oct 9, 2013	Issued
Empire Technology Development LLC	United States of America	9188142	13/445805	Apr 12, 2012	Issued
Empire Technology Development LLC	United States of America	9422958	13/583540	Sep 7, 2012	Issued
Empire Technology Development LLC	United States of America	9506494	14/117618	Nov 13, 2013	Issued
Empire Technology Development LLC	China	ZL201280071816.2	201280071816.2	Jan 26, 2012	Issued
Empire Technology Development LLC	Australia	2012367292	2012367292	Jan 26, 2012	Issued
Empire Technology Development LLC	United States of America	9253857	13/509351	May 11, 2012	Issued
Empire Technology Development LLC	China	ZL201280000385.0	201280000385.0	Mar 5, 2012	Issued
Empire Technology Development LLC	Japan	5669982	2014-503664	Mar 5, 2012	Issued
Empire Technology Development LLC	United States of America	9693426	14/975690	Dec 18, 2015	Issued
Empire Technology Development LLC	Germany	112012000517.1		Mar 5, 2012	Published
Empire Technology Development LLC	Republic of Korea	10-1813750	10-2014-7027641	Apr 26, 2012	Issued
Empire Technology Development LLC	United States of America	9734144	14/891810	Nov 17, 2015	Issued
Empire Technology Development LLC	European Patent Office	14902019.0		Sep 18, 2014	Published
Empire Technology Development LLC	United States of America	9658877	13/003222	Jan 7, 2011	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1537831	100125893	Jul 20, 2011	Issued
Empire Technology Development LLC	Japan	5636109	2013-525867	Aug 23, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1480856	10-2013-7007485	Aug 23, 2010	Issued

Empire Technology Development LLC	Germany	112010005821.0	Aug 23, 2010	Published
Empire Technology Development LLC	United States of America	8384303 12/710508	Feb 23, 2010	Issued
Empire Technology Development LLC	United States of America	9153356 12/714482	Feb 27, 2010	Issued
Empire Technology Development LLC	China	ZL201080064465.3	May 21, 2010	Issued
Empire Technology Development LLC	United States of America	8578020 12/647256	Dec 24, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1365260	Dec 13, 2010	Issued
Empire Technology Development LLC	China	ZL201080052090.9	Dec 13, 2010	Issued
Empire Technology Development LLC	Japan	5483778 2012-544445	Dec 13, 2010	Issued
Empire Technology Development LLC	United States of America	9629012 13/003235	Jan 7, 2011	Issued
Empire Technology Development LLC	United States of America	10085178 15/489111	Apr 17, 2017	Issued
Empire Technology Development LLC	United States of America	8951598 12/992120	Nov 11, 2010	Issued
Empire Technology Development LLC	United States of America	10046088 14/606672	Jan 27, 2015	Issued
Empire Technology Development LLC	United States of America	9079127 13/140328	Jun 16, 2011	Issued
Empire Technology Development LLC	China	ZL201080067234.8	Jun 4, 2010	Issued
Empire Technology Development LLC	Japan	5688451 2013-513141	Jun 4, 2010	Issued
Empire Technology Development LLC	United States of America	8478009 12/971140	Dec 17, 2010	Issued
Empire Technology Development LLC	United States of America	9264520 12/867177	Aug 11, 2010	Issued
Empire Technology Development LLC	China	ZL201080066273.6	Apr 22, 2010	Issued
Empire Technology Development LLC	Japan	5595584 2013-504856	Apr 22, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1436340	Apr 22, 2010	Issued
Empire Technology Development LLC	United States of America	9220921 13/063428	Mar 10, 2011	Issued
Empire Technology Development LLC	United States of America	8435312 13/123612	Apr 11, 2011	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1470864 100137921	Oct 19, 2011	Issued
Empire Technology Development LLC	United States of America	8657528 13/062936	Mar 8, 2011	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1451484 099135191	Oct 15, 2010	Issued
Empire Technology Development LLC	United States of America	9245765 13/394812	Mar 8, 2012	Issued
Empire Technology Development LLC	China	ZL201080045950.6	Oct 14, 2010	Issued
Empire Technology Development LLC	Japan	5718342 2012-534145	Oct 14, 2010	Issued
Empire Technology Development LLC	United States of America	8273175 13/392800	Feb 27, 2012	Issued
Empire Technology Development LLC	Japan	5374648 2012-536760	Sep 28, 2010	Issued
Empire Technology Development LLC	United States of America	8719927 13/054867	Jan 19, 2011	Issued
Empire Technology Development LLC	China	ZL201080069292.4	Sep 28, 2010	Issued
Empire Technology Development LLC	European Patent Office	2622807 10857961.6	Sep 28, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1445116	Sep 28, 2010	Issued
Empire Technology Development LLC	Germany	2622807 602010031521.5	Sep 28, 2010	Issued
Empire Technology Development LLC	France	2622807 10857961.6	Sep 28, 2010	Issued

Empire Technology Development LLC	United Kingdom	2622807	10857961.6	Sep 28, 2010	Issued
Empire Technology Development LLC	United States of America	8642183	13/575549	Jul 26, 2012	Issued
Empire Technology Development LLC	United States of America	8804527	13/264675	Oct 14, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1578746	10-2013-7022271	Apr 21, 2011	Issued
Empire Technology Development LLC	United States of America	9148760	14/321300	Jul 1, 2014	Issued
Empire Technology Development LLC	Japan	5993051	2015-046017	Apr 21, 2011	Issued
Empire Technology Development LLC	United States of America	9842226	14/830268	Aug 19, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1689242	10-2015-7035354	Dec 14, 2015	Issued
Empire Technology Development LLC	China	201180069059.0		Apr 21, 2011	Marked for Impairing
Empire Technology Development LLC	United States of America	15/837,304		Dec 11, 2017	Published
Empire Technology Development LLC	United States of America	8623506	13/389586	Feb 8, 2012	Issued
Empire Technology Development LLC	China	ZL201180070777.X	201180070777.X	Jun 22, 2011	Issued
Empire Technology Development LLC	United States of America	9558518	13/643273	Oct 24, 2012	Issued
Empire Technology Development LLC	United States of America	15/382,816		Dec 19, 2016	Published
Empire Technology Development LLC	United States of America	8670723	13/579248	Aug 15, 2012	Issued
Empire Technology Development LLC	United States of America	8897716	14/154850	Jan 14, 2014	Issued
Empire Technology Development LLC	China	201280071261.1	201280071261.1	Mar 8, 2012	Issued
Empire Technology Development LLC	Japan	5847966	2014-560895	Mar 8, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1819791	10-2014-7028026	Mar 8, 2012	Issued
Empire Technology Development LLC	United States of America	9507997	14/492814	Sep 22, 2014	Issued
Empire Technology Development LLC	European Patent Office	12870846.8		Mar 8, 2012	Published
Empire Technology Development LLC	United States of America	9274870	13/700836	Nov 29, 2012	Issued
Empire Technology Development LLC	United States of America	8771242	13/994438	Jun 14, 2013	Issued
Empire Technology Development LLC	United States of America	8771241	13/939915	Jul 11, 2013	Issued
Empire Technology Development LLC	United States of America	9594714	14/001174	Aug 23, 2013	Issued
Empire Technology Development LLC	United States of America	9501437	14/124007	Dec 5, 2013	Issued
Empire Technology Development LLC	United States of America	9542402	14/000527	Aug 20, 2013	Issued
Empire Technology Development LLC	United States of America	14/353,494		Apr 23, 2014	Published
Empire Technology Development LLC	United States of America	9563363	14/435747	Apr 15, 2015	Issued
Empire Technology Development LLC	United States of America	8694932	12/200271	Aug 28, 2008	Issued
Empire Technology Development LLC	Japan	4878049	2008-291645	Nov 14, 2008	Issued
Empire Technology Development LLC	United States of America	8745047	12/200438	Aug 28, 2008	Issued
Empire Technology Development LLC	Japan	5394044	2008-291639	Nov 14, 2008	Issued
Empire Technology Development LLC	Germany	102008058862	102008058862.8	Nov 26, 2008	Issued
Empire Technology Development LLC	Japan	4788008	2008-291637	Nov 14, 2008	Issued
Empire Technology Development LLC	Japan	5119129	2008-291636	Nov 14, 2008	Issued

Empire Technology Development LLC	United States of America	8655820	12/200043	Aug 28, 2008	Issued
Empire Technology Development LLC	Japan	5107211	2008-291641	Nov 14, 2008	Issued
Empire Technology Development LLC	United States of America	9095274	12/202282	Aug 31, 2008	Issued
Empire Technology Development LLC	United States of America	8850180	12/201298	Aug 29, 2008	Issued
Empire Technology Development LLC	United States of America	8195682	12/201329	Aug 29, 2008	Issued
Empire Technology Development LLC	United States of America	8838370	12/400631	Mar 9, 2009	Issued
Empire Technology Development LLC	European Patent Office	2228779	10155669.4	Mar 5, 2010	Issued
Empire Technology Development LLC	United States of America	9927254	14/457298	Aug 12, 2014	Issued
Empire Technology Development LLC	Germany	2228779	602010030296.2	Mar 5, 2010	Issued
Empire Technology Development LLC	France	2228779	10155669.4	Mar 5, 2010	Issued
Empire Technology Development LLC	United Kingdom	2228779	10155669.4	Mar 5, 2010	Issued
Empire Technology Development LLC	United States of America	15/935,849		Mar 26, 2018	Published
Empire Technology Development LLC	United States of America	8582502	12/478614	Jun 4, 2009	Issued
Empire Technology Development LLC	China	ZL201080024699.5	201080024699.5	Jun 3, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1346210	10-2012-7000225	Jun 3, 2010	Issued
Empire Technology Development LLC	Germany	112010002238.0	112010002238.0	Jun 3, 2010	Issued
Empire Technology Development LLC	United States of America	8830912	14/063003	Oct 25, 2013	Issued
Empire Technology Development LLC	United States of America	8570938	12/201403	Aug 29, 2008	Issued
Empire Technology Development LLC	United States of America	8126486	12/201381	Aug 29, 2008	Issued
Empire Technology Development LLC	United States of America	8577296	12/201415	Aug 29, 2008	Issued
Empire Technology Development LLC	United States of America	8934843	14/055447	Oct 16, 2013	Issued
Empire Technology Development LLC	United States of America	7881861	12/200096	Aug 28, 2008	Issued
Empire Technology Development LLC	United States of America	8108141	12/200077	Aug 28, 2008	Issued
Empire Technology Development LLC	United States of America	9372536	12/479280	Jun 5, 2009	Issued
Empire Technology Development LLC	United States of America	15/138,383		Apr 26, 2016	Published
Empire Technology Development LLC	United States of America	8861649	12/390957	Feb 23, 2009	Issued
Empire Technology Development LLC	Japan	5410947	2009-287071	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	8694519	12/396939	Mar 3, 2009	Issued
Empire Technology Development LLC	United States of America	9082155	14/159196	Jan 20, 2014	Issued
Empire Technology Development LLC	United States of America	8682254	12/487669	Jun 19, 2009	Issued
Empire Technology Development LLC	China	ZL201080027228.X	201080027228.X	Jun 4, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1349950	10-2012-7001416	Jun 4, 2010	Issued
Empire Technology Development LLC	Japan	5337299	2012-516112	Jun 4, 2010	Issued
Empire Technology Development LLC	United States of America	8539296	12/463460	May 11, 2009	Issued
Empire Technology Development LLC	China	ZL201080020709.8	201080020709.8	May 10, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1327698	10-2011-7029648	May 10, 2010	Issued

Empire Technology Development LLC	European Patent Office	2430761	10775310.5	May 10, 2010	Issued
Empire Technology Development LLC	United Kingdom	2430761	10775310.5	May 10, 2010	Issued
Empire Technology Development LLC	Germany	2430761	602010047809.2	May 10, 2010	Issued
Empire Technology Development LLC	France	2430761	10775310.5	May 10, 2010	Issued
Empire Technology Development LLC	European Patent Office		17203824.2	Jun 7, 2010	Allowed
Empire Technology Development LLC	United States of America		8902797 12/538879	Aug 11, 2009	Issued
Empire Technology Development LLC	China	ZL201080035334.2	201080035334.2	Jun 7, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1363594	10-2012-7004015	Jun 7, 2010	Issued
Empire Technology Development LLC	European Patent Office	2465303	10808485.6	Jun 7, 2010	Issued
Empire Technology Development LLC	United Kingdom	2465303	10808485.6	Jun 7, 2010	Issued
Empire Technology Development LLC	Germany	2465303	602010047540.9	Jun 7, 2010	Issued
Empire Technology Development LLC	France	2465303	10808485.6	Jun 7, 2010	Issued
Empire Technology Development LLC	United States of America		8346245 12/487670	Jun 19, 2009	Issued
Empire Technology Development LLC	China	ZL201080026655.6	201080026655.6	Jun 6, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1312552	10-2012-7001417	Jun 6, 2010	Issued
Empire Technology Development LLC	United States of America		9014008 12/539608	Aug 12, 2009	Issued
Empire Technology Development LLC	China	ZL201080035343.1	201080035343.1	Jun 8, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1414034	10-2012-7006116	Jun 8, 2010	Issued
Empire Technology Development LLC	United States of America		8754322 11/934564	Nov 2, 2007	Issued
Empire Technology Development LLC	United States of America		8114787 12/389236	Feb 19, 2009	Issued
Empire Technology Development LLC	Japan	5740085	2009-287074	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America		8664539 13/371782	Feb 13, 2012	Issued
Empire Technology Development LLC	United States of America		8786575 12/467943	May 18, 2009	Issued
Empire Technology Development LLC	Japan	5442854	2012-511902	May 13, 2010	Issued
Empire Technology Development LLC	United States of America		9427192 14/256575	Apr 18, 2014	Issued
Empire Technology Development LLC	United States of America		8076217 12/435213	May 4, 2009	Issued
Empire Technology Development LLC	United States of America		8598566 13/293932	Nov 10, 2011	Issued
Empire Technology Development LLC	Japan	5965312	2012-509880	May 3, 2010	Issued
Empire Technology Development LLC	China	ZL201080019838.5	201080019838.5	May 3, 2010	Issued
Empire Technology Development LLC	United States of America		8435595 12/503619	Jul 15, 2009	Issued
Empire Technology Development LLC	United States of America		8822026 13/857874	Apr 5, 2013	Issued
Empire Technology Development LLC	United States of America		8078016 12/422172	Apr 10, 2009	Issued
Empire Technology Development LLC	European Patent Office	2239621	09180976.4	Dec 30, 2009	Issued
Empire Technology Development LLC	Japan	5398511	2009-287072	Dec 18, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1238498	10-2009-0134768	Dec 30, 2009	Issued
Empire Technology Development LLC	China	ZL201080021819.6	201080021819.6	Apr 9, 2010	Issued

Empire Technology Development LLC	Germany	602009009778.4	09180976.4	Dec 30, 2009	Issued
Empire Technology Development LLC	France	2 239 621	09180976.4	Dec 30, 2009	Issued
Empire Technology Development LLC	United Kingdom	2239621	09180976.4	Dec 30, 2009	Issued
Empire Technology Development LLC	United States of America	8790460	12/467753	May 18, 2009	Issued
Empire Technology Development LLC	Japan	5209595	2009-288056	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	5216791	8320985 12/417478	Apr 2, 2009	Issued
Empire Technology Development LLC	Japan	5216791	2010-024987	Feb 8, 2010	Issued
Empire Technology Development LLC	United States of America	10-1265858	8911607 12/512823	Jul 30, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1265858	10-2010-0019925	Mar 5, 2010	Issued
Empire Technology Development LLC	United States of America	10-1174324	8178011 12/511457	Jul 29, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1174324	10-2009-0134790	Dec 30, 2009	Issued
Empire Technology Development LLC	United States of America	8031342	12/401380	Mar 10, 2009	Issued
Empire Technology Development LLC	United States of America	8062493	12/507550	Jul 22, 2009	Issued
Empire Technology Development LLC	Japan	5600424	2009-288059	Dec 18, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1243512	10-2009-0134774	Dec 30, 2009	Issued
Empire Technology Development LLC	United States of America	8425746	13/246636	Sep 27, 2011	Issued
Empire Technology Development LLC	United States of America	9797057	12/546499	Aug 24, 2009	Issued
Empire Technology Development LLC	Japan	5694327	2012-526877	Aug 23, 2010	Issued
Empire Technology Development LLC	China	ZL201080037747.4	201080037747.4	Aug 23, 2010	Issued
Empire Technology Development LLC	United States of America	8395591	12/507683	Jul 22, 2009	Issued
Empire Technology Development LLC	United States of America	8289291	12/511214	Jul 29, 2009	Issued
Empire Technology Development LLC	United States of America	8308955	12/506148	Jul 20, 2009	Issued
Empire Technology Development LLC	United States of America	9139437	13/657630	Oct 22, 2012	Issued
Empire Technology Development LLC	United States of America	9114994	13/657659	Oct 22, 2012	Issued
Empire Technology Development LLC	United States of America	8197579	12/488200	Jun 19, 2009	Issued
Empire Technology Development LLC	United States of America	8568511	13/493841	Jun 11, 2012	Issued
Empire Technology Development LLC	United States of America	8962976	12/492015	Jun 25, 2009	Issued
Empire Technology Development LLC	United States of America	8456620	12/509087	Jul 24, 2009	Issued
Empire Technology Development LLC	European Patent Office	10802594.1		Jun 10, 2010	Published
Empire Technology Development LLC	United States of America	9077784	12/367287	Feb 6, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1240884	10-2009-0115563	Nov 27, 2009	Issued
Empire Technology Development LLC	United States of America	9838456	14/563709	Dec 8, 2014	Issued
Empire Technology Development LLC	United States of America	15/829,200		Dec 1, 2017	Published
Empire Technology Development LLC	United States of America	8144613	12/467919	May 18, 2009	Issued
Empire Technology Development LLC	United States of America	8948806	12/497242	Jul 2, 2009	Issued
Empire Technology Development LLC	United States of America	8223664	12/542096	Aug 17, 2009	Issued



Empire Technology Development LLC	United States of America	8378932	12/463969	May 11, 2009	Issued
Empire Technology Development LLC	Japan	5674764	2012-510886	May 7, 2010	Issued
Empire Technology Development LLC	China	ZL201080020439.0	201080020439.0	May 7, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1288242	10-2011-7028950	May 7, 2010	Issued
Empire Technology Development LLC	United States of America	8893232	12/367237	Feb 6, 2009	Issued
Empire Technology Development LLC	United States of America	8099057	12/431912	Apr 29, 2009	Issued
Empire Technology Development LLC	China	ZL201010124828.X	201010124828.X	Feb 26, 2010	Issued
Empire Technology Development LLC	European Patent Office	2257097	10154702.4	Feb 25, 2010	Issued
Empire Technology Development LLC	Germany	2257097	10154702.4	Feb 25, 2010	Issued
Empire Technology Development LLC	France	2257097	10154702.4	Feb 25, 2010	Issued
Empire Technology Development LLC	United Kingdom	2257097	10154702.4	Feb 25, 2010	Issued
Empire Technology Development LLC	United States of America	8310947	12/490702	Jun 24, 2009	Issued
Empire Technology Development LLC	Japan	5355374	2009-287267	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	8077021	12/396777	Mar 3, 2009	Issued
Empire Technology Development LLC	China	ZL201010124827.5	201010124827.5	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	8358204	13/311375	Dec 5, 2011	Issued
Empire Technology Development LLC	United States of America	8253703	12/396787	Mar 3, 2009	Issued
Empire Technology Development LLC	China	ZL201010131702.5	201010131702.5	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	8581873	13/564837	Aug 2, 2012	Issued
Empire Technology Development LLC	United States of America	8306013	12/358253	Jan 23, 2009	Issued
Empire Technology Development LLC	United States of America	8897263	13/655471	Oct 19, 2012	Issued
Empire Technology Development LLC	United States of America	9326175	14/530845	Nov 3, 2014	Issued
Empire Technology Development LLC	United States of America	9674721	14/975796	Dec 20, 2015	Issued
Empire Technology Development LLC	United States of America	15/612,216		Jun 2, 2017	Published
Empire Technology Development LLC	United States of America	8914531	12/416156	Apr 1, 2009	Issued
Empire Technology Development LLC	United States of America	8260996	12/429580	Apr 24, 2009	Issued
Empire Technology Development LLC	China	ZL201010124820.3	201010124820.3	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	8687533	12/429524	Apr 24, 2009	Issued
Empire Technology Development LLC	United States of America	8321614	12/429539	Apr 24, 2009	Issued
Empire Technology Development LLC	China	ZL201010124826.0	201010124826.0	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	7996595	12/423368	Apr 14, 2009	Issued
Empire Technology Development LLC	European Patent Office	2241979	10154704.0	Feb 25, 2010	Issued
Empire Technology Development LLC	Germany	2241979	602010000301.9	Feb 25, 2010	Issued
Empire Technology Development LLC	United Kingdom	2241979	10154704.0	Feb 25, 2010	Issued
Empire Technology Development LLC	France	2241979	10154704.0	Feb 25, 2010	Issued
Empire Technology Development LLC	United States of America	8223889	12/351697	Jan 9, 2009	Issued

Empire Technology Development LLC	Japan	5554554	2009-287076	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	8385831	12/508549	Jul 23, 2009	Issued
Empire Technology Development LLC	United States of America	8442440	12/511955	Jul 29, 2009	Issued
Empire Technology Development LLC	United States of America	8854379	12/392903	Feb 25, 2009	Issued
Empire Technology Development LLC	Japan	5241032	2009-287067	Dec 18, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1388735	10-2009-0134698	Dec 30, 2009	Issued
Empire Technology Development LLC	Germany	102009055418.1		Dec 30, 2009	Published
Empire Technology Development LLC	United States of America	9189448	12/545063	Aug 20, 2009	Issued
Empire Technology Development LLC	United States of America	8180963	12/470256	May 21, 2009	Issued
Empire Technology Development LLC	United States of America	9262628	12/557845	May 21, 2009	Issued
Empire Technology Development LLC	United States of America	8924743	12/436657	Sep 11, 2009	Issued
Empire Technology Development LLC	United States of America	8726043	12/432661	May 6, 2009	Issued
Empire Technology Development LLC	United States of America	9178694	14/256616	Apr 29, 2009	Issued
Empire Technology Development LLC	United States of America	8799671	12/436644	Apr 18, 2014	Issued
Empire Technology Development LLC	United States of America	8352679	12/432599	May 6, 2009	Issued
Empire Technology Development LLC	United States of America	8824666	12/400488	Apr 29, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1185761	10-2010-0015065	Mar 9, 2009	Issued
Empire Technology Development LLC	United States of America	8398451	12/557827	Feb 19, 2010	Issued
Empire Technology Development LLC	United States of America	8508498	12/430503	Sep 11, 2009	Issued
Empire Technology Development LLC	United States of America	9569270	12/557985	Apr 27, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1361945	10-2012-7001252	Sep 11, 2009	Issued
Empire Technology Development LLC	China	ZL201080035177.5	201080035177.5	Jun 4, 2010	Issued
Empire Technology Development LLC	Japan	5487307	2012-523620	Jun 4, 2010	Issued
Empire Technology Development LLC	United Kingdom	GB2485682	1121568.8	Jun 4, 2010	Issued
Empire Technology Development LLC	United States of America	9189282	12/427602	Apr 21, 2009	Issued
Empire Technology Development LLC	European Patent Office	2254048	10154703.2	Feb 25, 2010	Issued
Empire Technology Development LLC	France	2254048	602010053086.8	Feb 25, 2010	Issued
Empire Technology Development LLC	Germany	2254048	10154703.2	Feb 25, 2010	Issued
Empire Technology Development LLC	United Kingdom	2254048	10154703.2	Feb 25, 2010	Issued
Empire Technology Development LLC	United States of America	8881157	12/557971	Sep 11, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1362017	10-2012-7001232	Jun 4, 2010	Issued
Empire Technology Development LLC	China	ZL201080035189.8	201080035189.8	Jun 4, 2010	Issued
Empire Technology Development LLC	Japan	5615361	2012-523619	Jun 4, 2010	Issued
Empire Technology Development LLC	United Kingdom	2485683	1121591.0	Jun 4, 2010	Issued
Empire Technology Development LLC	United States of America	8131970	12/427609	Apr 21, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1361928	10-2012-7001243	Jun 4, 2010	Issued



Empire Technology Development LLC	China	ZL201080035185.X	201080035185.X	Jun 4, 2010	Issued
Empire Technology Development LLC	Japan	5487306	2012-523618	Jun 4, 2010	Issued
Empire Technology Development LLC	United States of America	9208093	12/427598	Apr 21, 2009	Issued
Empire Technology Development LLC	United States of America	8244982	12/545625	Aug 21, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1373925	10-2012-7004213	Jun 11, 2010	Issued
Empire Technology Development LLC	China	ZL201080036611.1	201080036611.1	Jun 11, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1433485	10-2012-7003744	Jun 4, 2010	Issued
Empire Technology Development LLC	Japan	5484580	2012-524712	Jun 4, 2010	Issued
Empire Technology Development LLC	United States of America	9239994	12/392928	Feb 25, 2009	Issued
Empire Technology Development LLC	Japan	5266197	2009-287069	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	8838797	12/500667	Jul 10, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1414033	10-2012-7003552	Jun 11, 2010	Issued
Empire Technology Development LLC	Japan	5571184	2012-519557	Jun 11, 2010	Issued
Empire Technology Development LLC	United States of America	8547457	12/489197	Jun 22, 2009	Issued
Empire Technology Development LLC	Japan	5699140	2012-516144	Jun 11, 2010	Issued
Empire Technology Development LLC	China	ZL201080024755.5	201080024755.5	Jun 11, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1319048	10-2011-7027807	Jun 11, 2010	Issued
Empire Technology Development LLC	United States of America	8994857	14/034367	Sep 23, 2013	Issued
Empire Technology Development LLC	United States of America	8243045	12/401124	Mar 10, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1200741	10-2010-0017891	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	8203541	12/402332	Mar 11, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1200740	10-2010-0017381	Feb 25, 2010	Issued
Empire Technology Development LLC	United States of America	8866621	12/392889	Feb 25, 2009	Issued
Empire Technology Development LLC	United States of America	8628478	12/392913	Feb 25, 2009	Issued
Empire Technology Development LLC	United States of America	8882677	14/030884	Sep 18, 2013	Issued
Empire Technology Development LLC	United States of America	8193941	12/436550	May 6, 2009	Issued
Empire Technology Development LLC	United States of America	8836516	13/465893	May 7, 2012	Issued
Empire Technology Development LLC	United States of America	8355541	12/502304	Jul 14, 2009	Issued
Empire Technology Development LLC	United States of America	8370307	12/551790	Sep 1, 2009	Issued
Empire Technology Development LLC	United States of America	8725697	13/758792	Feb 4, 2013	Issued
Empire Technology Development LLC	United States of America	9330137	14/275815	May 12, 2014	Issued
Empire Technology Development LLC	United States of America	15/096,305		Apr 12, 2016	Published
Empire Technology Development LLC	United States of America	8607234	12/507696	Jul 22, 2009	Issued
Empire Technology Development LLC	Japan	5560331	2012-521651	Jun 25, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1377850	10-2011-7030903	Jun 25, 2010	Issued
Empire Technology Development LLC	China	ZL201080031695.X	201080031695.X	Jun 25, 2010	Issued

Empire Technology Development LLC	United States of America	8839255	12/508457	Jul 23, 2009	Issued
Empire Technology Development LLC	Japan	5444467	2012-521650	Jun 25, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1373978	10-2011-7030822	Jun 25, 2010	Issued
Empire Technology Development LLC	China	ZL201080032472.5	201080032472.5	Jun 25, 2010	Issued
Empire Technology Development LLC	United States of America	8799912	12/507671	Jul 22, 2009	Issued
Empire Technology Development LLC	Japan	5744866	2012-521654	Jun 25, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1377881	10-2011-7030857	Jun 25, 2010	Issued
Empire Technology Development LLC	China	ZL201080032151.5	201080032151.5	Jun 25, 2010	Issued
Empire Technology Development LLC	United States of America	8819686	12/507952	Jul 23, 2009	Issued
Empire Technology Development LLC	Japan	5553392	2012-521653	Jun 25, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1373947	10-2011-7030823	Jun 25, 2010	Issued
Empire Technology Development LLC	China	ZL201080032322.4	201080032322.4	Jun 25, 2010	Issued
Empire Technology Development LLC	United States of America	8924975	12/508552	Jul 23, 2009	Issued
Empire Technology Development LLC	Japan	5526420	2012-521652	Jun 25, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1457262	10-2011-7030918	Jun 25, 2010	Issued
Empire Technology Development LLC	China	ZL201080033055.2	201080033055.2	Jun 25, 2010	Issued
Empire Technology Development LLC	United States of America	8406206	12/390506	Feb 23, 2009	Issued
Empire Technology Development LLC	Japan	5188489	2009-287079	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	9277348	13/784850	Mar 5, 2013	Issued
Empire Technology Development LLC	United States of America	9888510	14/994266	Jan 13, 2016	Issued
Empire Technology Development LLC	United States of America	15/887,157		Feb 2, 2018	Published
Empire Technology Development LLC	European Patent Office	10154699.2		Feb 25, 2010	Allowed
Empire Technology Development LLC	United States of America	8615633	12/428563	Apr 23, 2009	Issued
Empire Technology Development LLC	United States of America	8266256	12/506383	Jul 21, 2009	Issued
Empire Technology Development LLC	Japan	5249470	2012-521639	Jun 3, 2010	Issued
Empire Technology Development LLC	United States of America	8335854	12/506391	Jul 21, 2009	Issued
Empire Technology Development LLC	Japan	5356597	2012-521640	Jun 3, 2010	Issued
Empire Technology Development LLC	United States of America	9524194	13/677770	Nov 15, 2012	Issued
Empire Technology Development LLC	United States of America	8075980	12/465711	May 14, 2009	Issued
Empire Technology Development LLC	Japan	5414510	2009-290656	Dec 22, 2009	Issued
Empire Technology Development LLC	China	ZL201080021049.5	201080021049.5	May 13, 2010	Issued
Empire Technology Development LLC	Germany	112010001985	112010001985.1	May 13, 2010	Issued
Empire Technology Development LLC	United States of America	8273425	12/465717	May 14, 2009	Issued
Empire Technology Development LLC	Japan	5398906	2012-511005	May 13, 2010	Issued
Empire Technology Development LLC	European Patent Office	10775525.8		May 13, 2010	Published
Empire Technology Development LLC	United States of America	8676668	12/540324	Aug 12, 2009	Issued

Empire Technology Development LLC	United States of America	9852435	14/199329	Mar 6, 2014	Issued
Empire Technology Development LLC	United States of America	15/852,586		Dec 22, 2017	Published
Empire Technology Development LLC	United States of America	8297444	12/546516	Aug 24, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1365259	10-2012-7006610	Aug 23, 2010	Issued
Empire Technology Development LLC	Japan	5323263	2012-525755	Aug 23, 2010	Issued
Empire Technology Development LLC	United States of America	8173060	12/426097	Apr 17, 2009	Issued
Empire Technology Development LLC	United States of America	8459976	13/432821	Mar 28, 2012	Issued
Empire Technology Development LLC	United States of America	8343585	12/478661	Jun 4, 2009	Issued
Empire Technology Development LLC	United States of America	8710153	13/685181	Nov 26, 2012	Issued
Empire Technology Development LLC	United States of America	8370787	12/547382	Aug 25, 2009	Issued
Empire Technology Development LLC	United States of America	8286120	12/541098	Aug 13, 2009	Issued
Empire Technology Development LLC	United States of America	8555236	13/648274	Oct 9, 2012	Issued
Empire Technology Development LLC	United States of America	7898283	12/551209	Aug 31, 2009	Issued
Empire Technology Development LLC	United States of America	8054098	12/984275	Jan 4, 2011	Issued
Empire Technology Development LLC	United States of America	8176454	12/550119	Aug 28, 2009	Issued
Empire Technology Development LLC	United States of America	8387071	12/550132	Aug 28, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1340497	10-2012-7007920	Aug 10, 2010	Issued
Empire Technology Development LLC	Japan	5485397	2012-526816	Aug 10, 2010	Issued
Empire Technology Development LLC	Japan	5695171	2013-255634	Dec 11, 2013	Issued
Empire Technology Development LLC	European Patent Office	10812482.7		Aug 10, 2010	Published
Empire Technology Development LLC	United States of America	8176448	12/479665	Jun 5, 2009	Issued
Empire Technology Development LLC	United States of America	9104435	12/423374	Apr 14, 2009	Issued
Empire Technology Development LLC	European Patent Office	2241969	10154705.7	Feb 25, 2010	Issued
Empire Technology Development LLC	France	2241969	602010053087.6	Feb 25, 2010	Issued
Empire Technology Development LLC	Germany	2241969	10154705.7	Feb 25, 2010	Issued
Empire Technology Development LLC	United Kingdom	2241969	10154705.7	Feb 25, 2010	Issued
Empire Technology Development LLC	United States of America	8112649	12/405607	Jun 26, 2015	Published
Empire Technology Development LLC	United States of America	5473647	2010-024990	Mar 17, 2009	Issued
Empire Technology Development LLC	Japan	8381112	12/481554	Feb 8, 2010	Issued
Empire Technology Development LLC	United States of America	8401560	12/479565	Jun 9, 2009	Issued
Empire Technology Development LLC	United States of America	9125066	13/742944	Jun 5, 2009	Issued
Empire Technology Development LLC	United States of America	9154964	13/742927	Jan 16, 2013	Issued
Empire Technology Development LLC	United States of America	9759800	14/805870	Jan 16, 2013	Issued
Empire Technology Development LLC	United States of America	8369242	12/415518	Jul 22, 2015	Issued
Empire Technology Development LLC	United States of America	8744485	13/728489	Mar 31, 2009	Issued
Empire Technology Development LLC	United States of America			Dec 27, 2012	Issued

Empire Technology Development LLC	United States of America	8712421	13/728674	Dec 27, 2012	Issued
Empire Technology Development LLC	United States of America	8054762	12/415523	Mar 31, 2009	Issued
Empire Technology Development LLC	United States of America	8443034	12/479584	Jun 5, 2009	Issued
Empire Technology Development LLC	United States of America	8417754	12/463984	May 11, 2009	Issued
Empire Technology Development LLC	China	ZL201080020725.7	201080020725.7	May 7, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1377869	10-2011-7029641	May 7, 2010	Issued
Empire Technology Development LLC	United States of America	8620982	13/855421	May 7, 2010	Issued
Empire Technology Development LLC	United States of America	8788559	14/095252	Apr 2, 2013	Issued
Empire Technology Development LLC	European Patent Office		10775302.2	Dec 3, 2013	Issued
Empire Technology Development LLC	United States of America	8532642	12/415027	May 7, 2010	Published
Empire Technology Development LLC	United States of America	8744429	13/941853	Mar 31, 2009	Issued
Empire Technology Development LLC	United States of America	9177311	14/293376	Jul 15, 2013	Issued
Empire Technology Development LLC	United States of America	9986435	14/885515	Jun 2, 2014	Issued
Empire Technology Development LLC	United States of America	15/961,575		Oct 16, 2015	Issued
Empire Technology Development LLC	United States of America	8661443	12/426139	Apr 24, 2018	Published
Empire Technology Development LLC	United States of America	9471376	14/171323	Apr 17, 2009	Issued
Empire Technology Development LLC	European Patent Office		10155668.6	Feb 3, 2014	Issued
Empire Technology Development LLC	United States of America	8260708	12/426141	Mar 5, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	9177119	13/547194	Apr 17, 2009	Issued
Empire Technology Development LLC	European Patent Office		10156500.0	Jul 12, 2012	Issued
Empire Technology Development LLC	United States of America	8041992	12/463982	Mar 15, 2010	Published
Empire Technology Development LLC	China	ZL201080025570.6	201080025570.6	May 11, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1268888	10-2011-7029605	May 4, 2010	Issued
Empire Technology Development LLC	Germany		112010001965.7	May 4, 2010	Issued
Empire Technology Development LLC	United States of America	8255743	12/463979	May 4, 2010	Published
Empire Technology Development LLC	United States of America	8566638	13/584277	May 11, 2009	Issued
Empire Technology Development LLC	United States of America	8111149	12/433696	Aug 13, 2012	Issued
Empire Technology Development LLC	China	ZL201080029795.9	201080029795.9	Apr 30, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1268887	10-2011-7028379	Apr 29, 2010	Issued
Empire Technology Development LLC	Japan	5319839	2012-508738	Apr 29, 2010	Issued
Empire Technology Development LLC	United States of America	8145943	12/463977	Apr 29, 2010	Issued
Empire Technology Development LLC	China	ZL201080028170.0	201080028170.0	May 11, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1312551	10-2011-7029606	May 4, 2010	Issued
Empire Technology Development LLC	Germany		112010001971.1	May 4, 2010	Issued
Empire Technology Development LLC	United States of America	8667109	12/433700	May 4, 2010	Published
Empire Technology Development LLC	China	ZL201080023939.X	201080023939.X	Apr 30, 2009	Issued
				Apr 29, 2010	Issued

Empire Technology Development LLC	Republic of Korea	10-1271471	10-2011-7028380	Apr 29, 2010	Issued
Empire Technology Development LLC	Japan	5575879	2012-508739	Apr 29, 2010	Issued
Empire Technology Development LLC	United States of America	9537709	14/192073	Feb 27, 2014	Issued
Empire Technology Development LLC	United States of America	9825803	15/350721	Nov 14, 2016	Issued
Empire Technology Development LLC	United States of America	10122570	15/817568	Nov 20, 2017	Issued
Empire Technology Development LLC	United States of America	16/180,193		Nov 5, 2018	Pending
Empire Technology Development LLC	China	8675538	12/433706	Apr 30, 2009	Issued
Empire Technology Development LLC	China	ZL201080025249.8	201080025249.8	Apr 29, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1420783	10-2011-7028381	Apr 29, 2010	Issued
Empire Technology Development LLC	United States of America	8850281	12/464384	May 12, 2009	Issued
Empire Technology Development LLC	United States of America	9547642	12/486446	Jun 17, 2009	Issued
Empire Technology Development LLC	United States of America	9032476	12/464387	May 12, 2009	Issued
Empire Technology Development LLC	United States of America	8379856	12/486451	Jun 17, 2009	Issued
Empire Technology Development LLC	China	ZL201080026651.8	201080026651.8	Jun 9, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1336004	10-2012-7001357	Jun 9, 2010	Issued
Empire Technology Development LLC	United States of America	9275392	12/496992	Jul 2, 2009	Issued
Empire Technology Development LLC	United States of America	14/996,246		Jan 15, 2016	Published
Empire Technology Development LLC	United States of America	8428254	12/415060	Mar 31, 2009	Issued
Empire Technology Development LLC	United States of America	5694325	2012-524713	Jun 7, 2010	Issued
Empire Technology Development LLC	Japan	10-1346211	10-2012-7006592	Jun 7, 2010	Issued
Empire Technology Development LLC	Republic of Korea	8706131	12/487054	Jun 18, 2009	Issued
Empire Technology Development LLC	United States of America	8738949	12/551550	Aug 31, 2009	Issued
Empire Technology Development LLC	Republic of Korea	10-1372623	10-2012-7002125	Jun 10, 2010	Issued
Empire Technology Development LLC	United States of America	9915994	14/281899	May 20, 2014	Issued
Empire Technology Development LLC	United States of America	8052784	12/434414	May 1, 2009	Issued
Empire Technology Development LLC	United States of America	8068867	12/416160	Apr 1, 2009	Issued
Empire Technology Development LLC	United States of America	8374091	12/411405	Mar 26, 2009	Issued
Empire Technology Development LLC	United States of America	8705367	13/738948	Jan 10, 2013	Issued
Empire Technology Development LLC	United States of America	15/707,572		Sep 18, 2017	Allowed
Empire Technology Development LLC	United States of America	8064360	12/358258	Jan 23, 2009	Issued
Empire Technology Development LLC	United States of America	8559329	13/275299	Oct 17, 2011	Issued
Empire Technology Development LLC	United States of America	9148807	14/037403	Sep 26, 2013	Issued
Empire Technology Development LLC	United States of America	9781031	14/855386	Sep 16, 2015	Issued
Empire Technology Development LLC	United States of America	8407011	12/534393	Aug 3, 2009	Issued
Empire Technology Development LLC	United States of America	9182321	13/771523	Feb 20, 2013	Issued
Empire Technology Development LLC	United States of America	8318528	12/506079	Jul 20, 2009	Issued

Empire Technology Development LLC	United States of America	9142699	13/654130	Oct 17, 2012	Issued
Empire Technology Development LLC	United States of America	8195888	12/408075	Mar 20, 2009	Issued
Empire Technology Development LLC	China	ZL201010124320.X	201010124320.X	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	8719165	12/502132	Jul 13, 2009	Issued
Empire Technology Development LLC	United States of America	8281034	12/502124	Jul 13, 2009	Issued
Empire Technology Development LLC	United States of America	9210216	13/598278	Aug 29, 2012	Issued
Empire Technology Development LLC	United States of America	15/428,804		Feb 9, 2017	Published
Empire Technology Development LLC	United States of America	8856794	12/578321	Oct 13, 2009	Issued
Empire Technology Development LLC	United States of America	8627300	12/578295	Oct 13, 2009	Issued
Empire Technology Development LLC	United States of America	8635606	12/578336	Oct 13, 2009	Issued
Empire Technology Development LLC	United States of America	8892931	12/582301	Oct 20, 2009	Issued
Empire Technology Development LLC	United States of America	8559307	12/648124	Dec 28, 2009	Issued
Empire Technology Development LLC	Japan	5226714	2010-052437	Mar 10, 2010	Issued
Empire Technology Development LLC	United States of America	9191341	14/021940	Sep 9, 2013	Issued
Empire Technology Development LLC	United States of America	8244986	12/649659	Dec 30, 2009	Issued
Empire Technology Development LLC	United States of America	8407426	13/410526	Mar 2, 2012	Issued
Empire Technology Development LLC	Japan	5525064	2012-545934	Sep 24, 2010	Issued
Empire Technology Development LLC	Japan	5747099	2014-080607	Apr 9, 2014	Issued
Empire Technology Development LLC	Germany		112010005073.2	Sep 24, 2010	Published
Empire Technology Development LLC	United States of America	8492339	12/605744	Oct 26, 2009	Issued
Empire Technology Development LLC	European Patent Office	10828749.1		Oct 15, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	8093313	12/606771	Oct 27, 2009	Issued
Empire Technology Development LLC	United States of America	15/600,583		May 19, 2017	Published
Empire Technology Development LLC	United States of America	9858393	12/997862	Dec 13, 2010	Issued
Empire Technology Development LLC	United States of America	9013991	12/643868	Dec 21, 2009	Issued
Empire Technology Development LLC	United States of America	8904114	12/624833	Nov 24, 2009	Issued
Empire Technology Development LLC	United States of America	8549339	12/713220	Feb 26, 2010	Issued
Empire Technology Development LLC	Japan	5547820	2012-553946	Feb 11, 2011	Issued
Empire Technology Development LLC	China	ZL201180005030.6	201180005030.6	Feb 11, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1426341	10-2012-7024888	Feb 11, 2011	Issued
Empire Technology Development LLC	Germany		112011100695.0	Feb 11, 2011	Issued
Empire Technology Development LLC	Japan	5559891	2012-542245	Feb 11, 2011	Marked for Impairing
Empire Technology Development LLC	Germany		112010004717.0	Dec 8, 2010	Issued
Empire Technology Development LLC	United States of America	8667227	12/644658	Dec 8, 2010	Published
Empire Technology Development LLC	Japan	5550742	2012-545935	Dec 22, 2009	Issued
Empire Technology Development LLC	Germany		112010004972.6	Sep 24, 2010	Issued
Empire Technology Development LLC	Germany			Sep 24, 2010	Published



Empire Technology Development LLC	United States of America	9367462	12/648529	Dec 29, 2009	Issued
Empire Technology Development LLC	Japan	5589091	2012-546192	Dec 22, 2010	Issued
Empire Technology Development LLC	Germany		112010005041.4	Dec 22, 2010	Published
Empire Technology Development LLC	United States of America	8874855	12/648092	Dec 28, 2009	Issued
Empire Technology Development LLC	United States of America	8392342	12/621424	Nov 18, 2009	Issued
Empire Technology Development LLC	United States of America	8886577	13/747309	Jan 22, 2013	Issued
Empire Technology Development LLC	United States of America	8473438	12/996010	Dec 2, 2010	Issued
Empire Technology Development LLC	United States of America	8868476	13/923250	Jun 20, 2013	Issued
Empire Technology Development LLC	United States of America	8458489	12/732012	Mar 25, 2010	Issued
Empire Technology Development LLC	United States of America	9020150	13/887361	May 5, 2013	Issued
Empire Technology Development LLC	United States of America	8427346	12/996972	Dec 8, 2010	Issued
Empire Technology Development LLC	United States of America	8327358	12/635319	Dec 10, 2009	Issued
Empire Technology Development LLC	Japan	5032606	2010-024988	Feb 8, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1094675	10-2010-0017262	Feb 25, 2010	Issued
Empire Technology Development LLC	European Patent Office	2333663	10152865.1	Feb 8, 2010	Issued
Empire Technology Development LLC	United Kingdom	2333663	10152865.1	Feb 8, 2010	Issued
Empire Technology Development LLC	Germany	2333663	602010019509.0	Feb 8, 2010	Issued
Empire Technology Development LLC	France	2333663	10152865.1	Feb 8, 2010	Issued
Empire Technology Development LLC	United States of America	8751854	12/642871	Dec 21, 2009	Issued
Empire Technology Development LLC	United States of America	9519305	14/294146	Jun 3, 2014	Issued
Empire Technology Development LLC	United States of America	9292893	12/635147	Dec 10, 2009	Issued
Empire Technology Development LLC	United States of America	15/049,585		Feb 22, 2016	Published
Empire Technology Development LLC	United States of America	8234431	12/578270	Oct 13, 2009	Issued
Empire Technology Development LLC	European Patent Office	2488953	10823917.9	Oct 12, 2010	Issued
Empire Technology Development LLC	Japan	5492305	2012-534273	Oct 12, 2010	Issued
Empire Technology Development LLC	United Kingdom	2488953	10823917.9	Oct 12, 2010	Issued
Empire Technology Development LLC	Germany	2488953	602010038518.3	Oct 12, 2010	Issued
Empire Technology Development LLC	France	2488953	10823917.9	Oct 12, 2010	Issued
Empire Technology Development LLC	European Patent Office		10816031.8	Sep 8, 2010	Published
Empire Technology Development LLC	United States of America	8473818	12/577378	Oct 12, 2009	Issued
Empire Technology Development LLC	Japan	5442129	2012-534183	May 28, 2010	Issued
Empire Technology Development LLC	Germany		112010004006.0	May 28, 2010	Published
Empire Technology Development LLC	United States of America	9262589	13/519309	Jun 26, 2012	Issued
Empire Technology Development LLC	United States of America	14/987,077		Jan 4, 2016	Published
Empire Technology Development LLC	United States of America	9513329	13/702267	Dec 5, 2012	Issued
Empire Technology Development LLC	China	ZL201080067611.8	201080067611.8	Jul 30, 2010	Issued

Empire Technology Development LLC	United States of America	9053029	13/702547	Dec 6, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1629879	10-2014-7025145	Feb 6, 2012	Issued
Empire Technology Development LLC	United States of America	8365131	12/685114	Jan 11, 2010	Issued
Empire Technology Development LLC	United States of America	8656338	13/751811	Jan 28, 2013	Issued
Empire Technology Development LLC	United States of America	8434674	13/058831	Feb 11, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1399248	10-2012-7028937	Jul 29, 2010	Issued
Empire Technology Development LLC	Japan	5635689	2013-516559	Jul 29, 2010	Issued
Empire Technology Development LLC	United States of America	8048288	12/625962	Nov 25, 2009	Issued
Empire Technology Development LLC	Japan	5145484	2012-539088	Nov 24, 2010	Issued
Empire Technology Development LLC	China	ZL201080052414.9	201080052414.9	Nov 24, 2010	Issued
Empire Technology Development LLC	European Patent Office	10833941.7		Nov 24, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	8163159	12/626017	Nov 25, 2009	Issued
Empire Technology Development LLC	United States of America	8371128	12/620477	Nov 17, 2009	Issued
Empire Technology Development LLC	United States of America	8441775	12/638224	Dec 15, 2009	Issued
Empire Technology Development LLC	China	ZL201080056767.6	201080056767.6	Dec 14, 2010	Issued
Empire Technology Development LLC	United States of America	8417340	12/577909	Oct 13, 2009	Issued
Empire Technology Development LLC	United States of America	9002456	13/785861	Mar 5, 2013	Issued
Empire Technology Development LLC	United States of America	8802792	13/145291	Jul 19, 2011	Issued
Empire Technology Development LLC	United States of America	8818711	12/642355	Dec 18, 2009	Issued
Empire Technology Development LLC	China	ZL201080051349.8	201080051349.8	May 28, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1452602	10-2012-7010763	May 28, 2010	Issued
Empire Technology Development LLC	Japan	5496359	2012-543089	May 28, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1562485	10-2014-7005271	Feb 27, 2014	Issued
Empire Technology Development LLC	Brazil	BR112012014599.1		May 28, 2010	Pending
Empire Technology Development LLC	United States of America	9424583	12/579718	Oct 15, 2009	Issued
Empire Technology Development LLC	Japan	5147871	2010-005836	Jan 14, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1097215	10-2010-0003456	Jan 14, 2010	Issued
Empire Technology Development LLC	United States of America	9682156	12/580940	Oct 16, 2009	Issued
Empire Technology Development LLC	United States of America	8580337	12/618670	Nov 13, 2009	Issued
Empire Technology Development LLC	China	ZL201080058899.2	201080058899.2	Oct 13, 2010	Issued
Empire Technology Development LLC	Japan	5793503	2012-538828	Oct 13, 2010	Issued
Empire Technology Development LLC	European Patent Office	2499204	10830395.9	Oct 13, 2010	Issued
Empire Technology Development LLC	United States of America	9481160	14/047544	Oct 7, 2013	Issued
Empire Technology Development LLC	France	2499204	10830395.9	Oct 13, 2010	Issued
Empire Technology Development LLC	United Kingdom	2499204	10830395.9	Oct 13, 2010	Issued
Empire Technology Development LLC	Germany	2499204	602010046948.4	Oct 13, 2010	Issued



Empire Technology Development LLC	United States of America	9001252	12/611083	Nov 2, 2009	Issued
Empire Technology Development LLC	United States of America		14/644,957	Mar 11, 2015	Published
Empire Technology Development LLC	United States of America	8214344	12/724660	Mar 16, 2010	Issued
Empire Technology Development LLC	China	ZL201180004870.0	201180004870.0	Mar 7, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1356310	10-2012-7013481	Mar 7, 2011	Issued
Empire Technology Development LLC	Japan	5426779	2012-546268	Mar 7, 2011	Issued
Empire Technology Development LLC	United States of America	8495051	13/479676	May 24, 2012	Issued
Empire Technology Development LLC	United States of America	9201970	13/919705	Jun 17, 2013	Issued
Empire Technology Development LLC	United States of America		14/851,226	Sep 11, 2015	Published
Empire Technology Development LLC	China		201610082319.2	Mar 7, 2011	Published
Empire Technology Development LLC	United States of America	8695353	12/641153	Dec 17, 2009	Issued
Empire Technology Development LLC	China	ZL201080060880.1	201080060880.1	Dec 6, 2010	Issued
Empire Technology Development LLC	United States of America	8855751	12/714011	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	8700663	12/536411	Aug 5, 2009	Issued
Empire Technology Development LLC	United States of America	8317901	12/714078	Feb 26, 2010	Issued
Empire Technology Development LLC	China	ZL201080064573.0	201080064573.0	Aug 25, 2010	Issued
Empire Technology Development LLC	Japan	5671068	2012-553869	Aug 25, 2010	Issued
Empire Technology Development LLC	European Patent Office		10846780.4	Aug 25, 2010	Issued
Empire Technology Development LLC	United States of America	8611069	12/999250	Aug 25, 2010	Published
Empire Technology Development LLC	China	ZL201080066798.X	201080066798.X	Dec 15, 2010	Issued
Empire Technology Development LLC	Japan	5683688	2013-510064	May 18, 2010	Issued
Empire Technology Development LLC	United States of America	9123477	14/073449	May 18, 2010	Issued
Empire Technology Development LLC	United States of America	8304947	12/997503	Nov 6, 2013	Issued
Empire Technology Development LLC	China	ZL201080067598.6	201080067598.6	Dec 10, 2010	Issued
Empire Technology Development LLC	United States of America	8437965	12/715373	Jun 21, 2010	Issued
Empire Technology Development LLC	China	ZL201080063438.4	201080063438.4	Mar 1, 2010	Issued
Empire Technology Development LLC	Japan	5653459	2012-554985	Oct 22, 2010	Issued
Empire Technology Development LLC	European Patent Office		10847153.3	Oct 22, 2010	Issued
Empire Technology Development LLC	United States of America	8610771	12/719797	Oct 22, 2010	Marked for Impairing
Empire Technology Development LLC	China	ZL201180005006.2	201180005006.2	Mar 8, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1476513	10-2012-7014570	Feb 25, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1445996	10-2013-7022640	Feb 25, 2011	Issued
Empire Technology Development LLC	United States of America	9390503	14/094623	Aug 27, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1677813	10-2014-7002052	Dec 2, 2013	Issued
Empire Technology Development LLC	United States of America	8386403	12/716084	Jan 24, 2014	Issued
Empire Technology Development LLC	Japan	5670484	2012-555014	Mar 2, 2010	Issued
				Jan 31, 2011	Issued

Empire Technology Development LLC	Republic of Korea	10-1387973	10-2012-7025390	Jan 31, 2011	Issued
Empire Technology Development LLC	Germany		112011100757.4	Jan 31, 2011	Published
Empire Technology Development LLC	United States of America	8238514	12/640705	Dec 17, 2009	Issued
Empire Technology Development LLC	United States of America	8866845	12/720858	Mar 10, 2010	Issued
Empire Technology Development LLC	China	ZL201180004985.X	201180004985.X	Feb 25, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1453630	10-2012-7013372	Feb 25, 2011	Issued
Empire Technology Development LLC	Japan	5520387	2012-543348	Feb 25, 2011	Issued
Empire Technology Development LLC	United States of America	8442502	12/715868	Mar 2, 2010	Issued
Empire Technology Development LLC	China	ZL201180004879.1	201180004879.1	Feb 16, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1491582	10-2012-7014417	Feb 16, 2011	Issued
Empire Technology Development LLC	Japan	5566472	2012-544965	Feb 16, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1687460	10-2014-7005474	Feb 28, 2014	Issued
Empire Technology Development LLC	United States of America	8400471	12/719086	Mar 8, 2010	Issued
Empire Technology Development LLC	United States of America	8416263	12/719100	Mar 8, 2010	Issued
Empire Technology Development LLC	China	ZL201180004866.4	201180004866.4	Feb 16, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1355286	10-2012-7013366	Feb 16, 2011	Issued
Empire Technology Development LLC	Japan	5346128	2012-548243	Feb 16, 2011	Issued
Empire Technology Development LLC	United States of America	8797356	13/787046	Mar 6, 2013	Issued
Empire Technology Development LLC	China	ZL201410305571.6	201410305571.6	Feb 16, 2011	Issued
Empire Technology Development LLC	United States of America	8821702	13/382498	Jan 5, 2012	Issued
Empire Technology Development LLC	United States of America	9606612	13/148167	Aug 5, 2011	Issued
Empire Technology Development LLC	China	ZL201080066831.9	201080066831.9	Jul 20, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1431366	10-2012-7028682	Jul 20, 2010	Issued
Empire Technology Development LLC	Japan	5512884	2013-513146	Jul 20, 2010	Issued
Empire Technology Development LLC	United States of America	15/469,687		Mar 27, 2017	Published
Empire Technology Development LLC	United States of America	8375161	12/717034	Mar 3, 2010	Issued
Empire Technology Development LLC	United States of America	10114008	15/112660	Jul 19, 2016	Issued
Empire Technology Development LLC	United States of America	16/137,725		Sep 21, 2018	Pending
Empire Technology Development LLC	United States of America	8591413	12/714060	Feb 26, 2010	Issued
Empire Technology Development LLC	United States of America	8404199	12/999963	Dec 17, 2010	Issued
Empire Technology Development LLC	China	ZL201080067265.3	201080067265.3	Jun 9, 2010	Issued
Empire Technology Development LLC	Japan	5674927	2013-514142	Jun 9, 2010	Issued
Empire Technology Development LLC	United States of America		12/999,100	Dec 15, 2010	Published
Empire Technology Development LLC	European Patent Office		10853003.1	Jun 9, 2010	Published
Empire Technology Development LLC	United States of America	8262880	12/720221	Mar 9, 2010	Issued
Empire Technology Development LLC	China	ZL201180009199.9	201180009199.9	Feb 18, 2011	Issued

Empire Technology Development LLC	Japan	5607764	2012-555059	Feb 18, 2011	Issued
Empire Technology Development LLC	United States of America	8425748	13/572377	Aug 10, 2012	Issued
Empire Technology Development LLC	European Patent Office	11753779.5		Feb 18, 2011	Published
Empire Technology Development LLC	United States of America	8614663	12/724023	Mar 15, 2010	Issued
Empire Technology Development LLC	China	ZL201180005091.2	201180005091.2	Feb 7, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1431351	10-2012-7013373	Feb 7, 2011	Issued
Empire Technology Development LLC	Japan	5421466	2012-547344	Feb 7, 2011	Issued
Empire Technology Development LLC	United States of America	9096783	13/058829	Feb 11, 2011	Issued
Empire Technology Development LLC	China	ZL201080069072.1	201080069072.1	Sep 14, 2010	Issued
Empire Technology Development LLC	European Patent Office	2616519	10857374.2	Sep 14, 2010	Issued
Empire Technology Development LLC	United Kingdom	2616519	10857374.2	Sep 14, 2010	Issued
Empire Technology Development LLC	Germany	2616519	602010047869.6	Sep 14, 2010	Issued
Empire Technology Development LLC	France	2616519	10857374.2	Sep 14, 2010	Issued
Empire Technology Development LLC	United States of America	8948016	12/999835	Dec 17, 2010	Issued
Empire Technology Development LLC	China	ZL 201080068518.9	201080068518.9	Aug 6, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1420784	10-2013-7005822	Aug 6, 2010	Issued
Empire Technology Development LLC	Japan	5518262	2013-523135	Aug 6, 2010	Issued
Empire Technology Development LLC	European Patent Office	10855710.9		Aug 6, 2010	Published
Empire Technology Development LLC	United States of America	8551257	13/002263	Dec 30, 2010	Issued
Empire Technology Development LLC	China	ZL201080068495.1	201080068495.1	Aug 6, 2010	Issued
Empire Technology Development LLC	Japan	5579324	2013-523137	Aug 6, 2010	Issued
Empire Technology Development LLC	United States of America	9238787	13/974972	Aug 23, 2013	Issued
Empire Technology Development LLC	United States of America	8259437	12/719651	Mar 8, 2010	Issued
Empire Technology Development LLC	China	ZL201180004927.7	201180004927.7	Mar 7, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1467068	10-2012-7014466	Mar 7, 2011	Issued
Empire Technology Development LLC	Japan	5465789	2012-543349	Mar 7, 2011	Issued
Empire Technology Development LLC	United States of America	8826771	12/881727	Sep 14, 2010	Issued
Empire Technology Development LLC	United States of America	8561454	13/202356	Aug 19, 2011	Issued
Empire Technology Development LLC	China	ZL201080069829.7	201080069829.7	Oct 28, 2010	Issued
Empire Technology Development LLC	Japan	5669950	2013-534886	Oct 28, 2010	Issued
Empire Technology Development LLC	European Patent Office	10859075.3		Oct 28, 2010	Issued
Empire Technology Development LLC	United States of America	8567232	12/997859	Oct 28, 2010	Marked for Impairing
Empire Technology Development LLC	China	ZL201080067920.5	201080067920.5	Dec 13, 2010	Issued
Empire Technology Development LLC	Japan	5469780	2013-518364	Jul 9, 2010	Issued
Empire Technology Development LLC	United States of America	8192630	13/121175	Jul 9, 2010	Issued
Empire Technology Development LLC	United States of America	8834722	13/466868	Mar 25, 2011	Issued
Empire Technology Development LLC	United States of America			May 8, 2012	Issued

Empire Technology Development LLC	United States of America	8368271 12/637780	Dec 15, 2009	Issued
Empire Technology Development LLC	China	ZL201080056762.3 201080056762.3	Oct 28, 2010	Issued
Empire Technology Development LLC	United States of America	8874849 13/498071	Mar 23, 2012	Issued
Empire Technology Development LLC	China	ZL201080066116.5 201080066116.5	Apr 21, 2010	Issued
Empire Technology Development LLC	Japan	5597306 2013-504876	Apr 21, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1414035 10-2012-7030081	Apr 21, 2010	Issued
Empire Technology Development LLC	United States of America	8152862 13/002272	Dec 30, 2010	Issued
Empire Technology Development LLC	United States of America	8192507 13/413490	Mar 6, 2012	Issued
Empire Technology Development LLC	Japan	5763766 2013-523138	Aug 6, 2010	Issued
Empire Technology Development LLC	China	ZL201080068472.0 201080068472.0	Aug 6, 2010	Issued
Empire Technology Development LLC	United States of America	8734628 12/720755	Mar 10, 2010	Issued
Empire Technology Development LLC	China	ZL201180009561.2 201180009561.2	Feb 17, 2011	Issued
Empire Technology Development LLC	European Patent Office	2545371 11753774.6	Feb 17, 2011	Issued
Empire Technology Development LLC	United States of America	9366648 14/253451	Apr 15, 2014	Issued
Empire Technology Development LLC	France	2545371 11753774.6	Feb 17, 2011	Issued
Empire Technology Development LLC	Germany	2545371 602011052566.2	Feb 17, 2011	Issued
Empire Technology Development LLC	United Kingdom	2545371 11753774.6	Feb 17, 2011	Issued
Empire Technology Development LLC	United States of America	8871512 13/384174	Jan 13, 2012	Issued
Empire Technology Development LLC	United States of America	9428532 14/497574	Sep 26, 2014	Issued
Empire Technology Development LLC	China	ZL201080069433.2 201080069433.2	Aug 6, 2010	Issued
Empire Technology Development LLC	United States of America	9388379 13/202565	Aug 19, 2011	Issued
Empire Technology Development LLC	United States of America	9534800 13/126448	Apr 27, 2011	Issued
Empire Technology Development LLC	European Patent Office	10856525.0	Aug 27, 2010	Published
Empire Technology Development LLC	United States of America	8366874 13/131111	May 25, 2011	Issued
Empire Technology Development LLC	United States of America	8807189 13/729508	Dec 28, 2012	Issued
Empire Technology Development LLC	China	ZL201080068441.5 201080068441.5	Aug 9, 2010	Issued
Empire Technology Development LLC	United States of America	8572831 12/995440	Nov 30, 2010	Issued
Empire Technology Development LLC	Japan	5629822 2013-514139	Jun 7, 2010	Issued
Empire Technology Development LLC	United States of America	9266201 14/043836	Oct 1, 2013	Issued
Empire Technology Development LLC	United States of America	10009824 12/993167	Nov 17, 2010	Issued
Empire Technology Development LLC	China	ZL201080069448.9 201080069448.9	Sep 1, 2010	Issued
Empire Technology Development LLC	Japan	5746349 2013-527049	Sep 1, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1717110 10-2013-7008345	Sep 1, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1605354 10-2015-7020389	Jul 27, 2015	Issued
Empire Technology Development LLC	European Patent Office	10856808.0	Sep 1, 2010	Published
Empire Technology Development LLC	United States of America	15/991,896	May 29, 2018	Published

Empire Technology Development LLC	United States of America	8680992 13/260120	Sep 23, 2011	Issued
Empire Technology Development LLC	United States of America	9454777 14/208175	Mar 13, 2014	Issued
Empire Technology Development LLC	United States of America	8769967 12/999182	Dec 15, 2010	Issued
Empire Technology Development LLC	United States of America	9200271 13/202816	Aug 23, 2011	Issued
Empire Technology Development LLC	United States of America	9717420 13/128627	May 10, 2011	Issued
Empire Technology Development LLC	United States of America	8660000 12/999269	Dec 15, 2010	Issued
Empire Technology Development LLC	United States of America	8422792 13/003717	Jan 11, 2011	Issued
Empire Technology Development LLC	United States of America	8734924 12/999978	Dec 17, 2010	Issued
Empire Technology Development LLC	United States of America	8447853 12/999784	Dec 17, 2010	Issued
Empire Technology Development LLC	China	ZL201080062384.X	Jun 4, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1394747	Jun 4, 2010	Issued
Empire Technology Development LLC	Japan	5658768	Jun 4, 2010	Issued
Empire Technology Development LLC	Republic of Korea	2012-554977	Jun 4, 2010	Issued
Empire Technology Development LLC	China	10-1486938	Jun 4, 2010	Issued
Empire Technology Development LLC	China	ZL201080069358.X	Sep 29, 2010	Issued
Empire Technology Development LLC	United States of America	8911988 13/202559	Sep 29, 2010	Issued
Empire Technology Development LLC	United States of America	8439982 13/125006	Apr 19, 2011	Issued
Empire Technology Development LLC	China	ZL201080068194.9	Aug 27, 2010	Issued
Empire Technology Development LLC	Japan	5719024	Aug 27, 2010	Issued
Empire Technology Development LLC	United States of America	8475665 13/059131	Feb 15, 2011	Issued
Empire Technology Development LLC	China	ZL201080067917.3	Jul 15, 2010	Issued
Empire Technology Development LLC	Japan	5697280	Jul 15, 2010	Issued
Empire Technology Development LLC	European Patent Office	10854828.0	Jul 15, 2010	Issued
Empire Technology Development LLC	United States of America	8598266 13/322082	Nov 22, 2011	Issued
Empire Technology Development LLC	China	ZL201180064313.8	Mar 25, 2011	Issued
Empire Technology Development LLC	United States of America	8760177 12/999461	Dec 16, 2010	Issued
Empire Technology Development LLC	United States of America	9612169 14/303326	Jun 12, 2014	Issued
Empire Technology Development LLC	United States of America	9508913 12/999684	Dec 17, 2010	Issued
Empire Technology Development LLC	China	ZL201080067513.4	Jun 18, 2010	Issued
Empire Technology Development LLC	European Patent Office	10853373.8	Jun 18, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	8993338 13/126085	Apr 26, 2011	Issued
Empire Technology Development LLC	China	ZL201080068821.9	Aug 27, 2010	Issued
Empire Technology Development LLC	Japan	5580481	Aug 27, 2010	Issued
Empire Technology Development LLC	United States of America	9835605 14/657902	Mar 13, 2015	Issued
Empire Technology Development LLC	European Patent Office	10856524.3	Aug 27, 2010	Published
Empire Technology Development LLC	United States of America	8530241 13/063721	Mar 11, 2011	Issued
Empire Technology Development LLC	China	ZL201080068828.0	Aug 27, 2010	Issued

Empire Technology Development LLC	Japan	5709998	2013-525877	Aug 27, 2010	Issued
Empire Technology Development LLC	European Patent Office		10856523.5	Aug 27, 2010	Published
Empire Technology Development LLC	United States of America	8639934	12/999770	Dec 17, 2010	Issued
Empire Technology Development LLC	United States of America	8951682	12/999933	Dec 17, 2010	Issued
Empire Technology Development LLC	United States of America	8153575	13/202933	Aug 23, 2011	Issued
Empire Technology Development LLC	United States of America	9640846	12/999301	Dec 15, 2010	Issued
Empire Technology Development LLC	United States of America	8643625	13/142093	Jun 24, 2011	Issued
Empire Technology Development LLC	China	ZL201080062378.4	201080062378.4	Jun 10, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1365313	10-2012-7017476	Jun 10, 2010	Issued
Empire Technology Development LLC	Japan	5725672	2012-554978	Jun 10, 2010	Issued
Empire Technology Development LLC	United States of America	8830957	12/999513	Dec 16, 2010	Issued
Empire Technology Development LLC	Japan	5281201	2012-533185	Sep 7, 2010	Issued
Empire Technology Development LLC	China	ZL201080069017.2	201080069017.2	Sep 7, 2010	Issued
Empire Technology Development LLC	European Patent Office	2614673	10857066.4	Sep 7, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1578140	10-2013-7008888	Sep 7, 2010	Issued
Empire Technology Development LLC	United States of America	9220043	14/472975	Aug 29, 2014	Issued
Empire Technology Development LLC	Germany	2614673	602010049113.7	Sep 7, 2010	Issued
Empire Technology Development LLC	France	2614673	10857066.4	Sep 7, 2010	Issued
Empire Technology Development LLC	United Kingdom	2614673	10857066.4	Sep 7, 2010	Issued
Empire Technology Development LLC	European Patent Office		18155345.4	Sep 7, 2010	Issued
Empire Technology Development LLC	United States of America	8932533	12/999594	Sep 7, 2010	Marked for Impairing
Empire Technology Development LLC	China	ZL201080069374.9	201080069374.9	Dec 16, 2010	Issued
Empire Technology Development LLC	Japan	5669947	2013-531554	Oct 1, 2010	Issued
Empire Technology Development LLC	United States of America	8889403	13/394471	Oct 1, 2010	Issued
Empire Technology Development LLC	United States of America	9034640	13/322393	Mar 6, 2012	Issued
Empire Technology Development LLC	United States of America	8246698	13/126132	Nov 23, 2011	Issued
Empire Technology Development LLC	United States of America	8298298	13/546333	Apr 26, 2011	Issued
Empire Technology Development LLC	United States of America	8617750	12/999694	Jul 11, 2012	Issued
Empire Technology Development LLC	United States of America	8802303	14/055445	Dec 17, 2010	Issued
Empire Technology Development LLC	United States of America	9102914	13/257949	Oct 16, 2013	Issued
Empire Technology Development LLC	United States of America	8423867	13/059808	Sep 20, 2011	Issued
Empire Technology Development LLC	China	ZL201080069822.5	201080069822.5	Feb 18, 2011	Issued
Empire Technology Development LLC	Japan	5468184	2013-536575	Oct 29, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1326011	10-2013-7013756	Oct 29, 2010	Issued
Empire Technology Development LLC	European Patent Office		10859090.2	Oct 29, 2010	Issued
Empire Technology Development LLC	United States of America	9204362	13/816178	Oct 29, 2010	Marked for Impairing
				Feb 8, 2013	Issued



Empire Technology Development LLC	United States of America	8790926 13/260021	Sep 23, 2011	Issued
Empire Technology Development LLC	United States of America	8589933 13/129099	May 12, 2011	Issued
Empire Technology Development LLC	China	ZL201080067726.7	Oct 19, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1467072	Oct 19, 2010	Issued
Empire Technology Development LLC	United States of America	9342305 14/035177	Sep 24, 2013	Issued
Empire Technology Development LLC	United States of America	9634881 13/264223	Oct 13, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1577878	Feb 3, 2011	Issued
Empire Technology Development LLC	United States of America	8254250 12/895666	Sep 30, 2010	Issued
Empire Technology Development LLC	China	ZL201180024226.X	Jan 28, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1420728	Jan 28, 2011	Issued
Empire Technology Development LLC	Japan	5512899	Jan 28, 2011	Issued
Empire Technology Development LLC	United States of America	8954103 13/059744	Feb 18, 2011	Issued
Empire Technology Development LLC	China	ZL201080070461.6	Oct 1, 2010	Issued
Empire Technology Development LLC	Japan	5648130	Oct 1, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1458570	Oct 1, 2010	Issued
Empire Technology Development LLC	European Patent Office	1085801.9	Oct 1, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	8856301 12/999561	Dec 16, 2010	Issued
Empire Technology Development LLC	United States of America	8577330 13/124745	Apr 18, 2011	Issued
Empire Technology Development LLC	United States of America	8862273 13/056026	Jan 26, 2011	Issued
Empire Technology Development LLC	China	ZL201080066807.5	Jul 29, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1527269	Jul 29, 2010	Issued
Empire Technology Development LLC	United States of America	9115976 14/001938	Aug 28, 2013	Issued
Empire Technology Development LLC	United States of America	8868688 13/144629	Jul 14, 2011	Issued
Empire Technology Development LLC	Japan	5604517	Jul 20, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1482818	Jul 20, 2010	Issued
Empire Technology Development LLC	Brazil	11 2013 001426 1	Jul 20, 2010	Pending
Empire Technology Development LLC	European Patent Office	10855092.2	Jul 20, 2010	Published
Empire Technology Development LLC	United States of America	8661537 13/054055	Jan 13, 2011	Issued
Empire Technology Development LLC	Japan	5254497	Jul 21, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1463678	Jul 21, 2010	Issued
Empire Technology Development LLC	United States of America	8881275 14/084413	Nov 19, 2013	Issued
Empire Technology Development LLC	United States of America	8492753 13/129371	May 13, 2011	Issued
Empire Technology Development LLC	China	ZL201080069270.8	Sep 28, 2010	Issued
Empire Technology Development LLC	Japan	5762545	Sep 28, 2010	Issued
Empire Technology Development LLC	United States of America	8512669 13/129557	May 16, 2011	Issued
Empire Technology Development LLC	United States of America	8840722 13/946961	Jul 19, 2013	Issued

Empire Technology Development LLC	United States of America	9120676 13/641908	Oct 18, 2012	Issued
Empire Technology Development LLC	United States of America	9695048 14/820184	Aug 6, 2015	Issued
Empire Technology Development LLC	United States of America	9409131 13/378976	Dec 16, 2011	Issued
Empire Technology Development LLC	China	ZL201180071640.6	Jun 13, 2011	Issued
Empire Technology Development LLC	Japan	5795686 2014-515791	Jun 13, 2011	Issued
Empire Technology Development LLC	United States of America	9738984 13/383802	Jan 12, 2012	Issued
Empire Technology Development LLC	United States of America	8691335 13/517458	Jun 20, 2012	Issued
Empire Technology Development LLC	United States of America	9359671 14/176833	Feb 10, 2014	Issued
Empire Technology Development LLC	United States of America	9517438 13/383955	Jan 13, 2012	Issued
Empire Technology Development LLC	United States of America	8679290 13/002080	Dec 30, 2010	Issued
Empire Technology Development LLC	China	ZL201080069797.0	Oct 28, 2010	Issued
Empire Technology Development LLC	United States of America	9573312 14/176362	Feb 10, 2014	Issued
Empire Technology Development LLC	United States of America	8838470 13/143282	Jul 6, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1419155 10-2012-7017121	Jun 14, 2010	Issued
Empire Technology Development LLC	Japan	5513674 2013-502552	Jun 14, 2010	Issued
Empire Technology Development LLC	United States of America	8680458 13/002043	Dec 29, 2010	Issued
Empire Technology Development LLC	United States of America	8933390 14/169145	Jan 30, 2014	Issued
Empire Technology Development LLC	United States of America	8712203 13/148166	Aug 5, 2011	Issued
Empire Technology Development LLC	China	ZL201080069982.X	Nov 3, 2010	Issued
Empire Technology Development LLC	Japan	5599516 2013-535518	Nov 3, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1521160 10-2013-7014227	Nov 3, 2010	Issued
Empire Technology Development LLC	United States of America	14/124,585	Dec 6, 2013	Allowed
Empire Technology Development LLC	China	8425867 13/501036	Apr 9, 2012	Issued
Empire Technology Development LLC	China	ZL201180072327.4	Aug 15, 2011	Issued
Empire Technology Development LLC	Japan	5993007 2014-523899	Aug 15, 2011	Issued
Empire Technology Development LLC	European Patent Office	10857987.1	Sep 30, 2010	Allowed
Empire Technology Development LLC	United States of America	8965598 13/054882	Jan 19, 2011	Issued
Empire Technology Development LLC	United States of America	9352833 14/574329	Dec 17, 2014	Issued
Empire Technology Development LLC	United States of America	8709166 13/126115	Apr 26, 2011	Issued
Empire Technology Development LLC	United States of America	8512936 12/999141	Dec 15, 2010	Issued
Empire Technology Development LLC	China	ZL201080069331.0	Sep 29, 2010	Issued
Empire Technology Development LLC	United States of America	8773636 13/950923	Jul 25, 2013	Issued
Empire Technology Development LLC	China	ZL201280075976.4	Jul 24, 2012	Issued
Empire Technology Development LLC	United States of America	8943380 13/500881	Apr 6, 2012	Issued
Empire Technology Development LLC	United States of America	8580479 13/123816	Apr 12, 2011	Issued
Empire Technology Development LLC	United States of America	9599895 14/048682	Oct 8, 2013	Issued



Empire Technology Development LLC	United States of America	8227561	13/318098	Oct 28, 2011	Issued
Empire Technology Development LLC	United States of America	8329846	13/531940	Jun 25, 2012	Issued
Empire Technology Development LLC	United States of America	9336146	13/319159	Nov 7, 2011	Issued
Empire Technology Development LLC	Japan	5603507	2013-544447	Dec 29, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1497516	10-2013-7017646	Dec 29, 2010	Issued
Empire Technology Development LLC	United States of America	9760486	15/080605	Mar 25, 2016	Issued
Empire Technology Development LLC	United States of America	9022688	13/129531	May 16, 2011	Issued
Empire Technology Development LLC	China	ZL201080070221.6	201080070221.6	Dec 1, 2010	Issued
Empire Technology Development LLC	United States of America	14/172,753		Feb 4, 2014	Allowed
Empire Technology Development LLC	United States of America	8688492	13/501042	Apr 9, 2012	Issued
Empire Technology Development LLC	United States of America	8635817	13/260157	Sep 23, 2011	Issued
Empire Technology Development LLC	United States of America	15/587,382		May 4, 2017	Published
Empire Technology Development LLC	United States of America	8809064	13/318398	Nov 1, 2011	Issued
Empire Technology Development LLC	United States of America	8832414	13/387210	Jan 26, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1531155	10-2013-7019466	Mar 24, 2011	Issued
Empire Technology Development LLC	United States of America	9308294	13/499392	Mar 30, 2012	Issued
Empire Technology Development LLC	United States of America	14/583,533		Dec 26, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	8946352	13/128207	May 6, 2011	Issued
Empire Technology Development LLC	United States of America	9486746	14/065290	Oct 28, 2013	Issued
Empire Technology Development LLC	United States of America	9298509	13/058303	Feb 9, 2011	Issued
Empire Technology Development LLC	China	ZL201080067482.2	201080067482.2	Oct 5, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1482832	10-2012-7032267	Oct 5, 2010	Issued
Empire Technology Development LLC	United States of America	8683493	13/122189	Apr 1, 2011	Issued
Empire Technology Development LLC	China	ZL201080069564.0	201080069564.0	Nov 15, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1431398	10-2013-7002860	Nov 15, 2010	Issued
Empire Technology Development LLC	United States of America	8855030	13/121964	Mar 31, 2011	Issued
Empire Technology Development LLC	China	ZL201080070387.8	201080070387.8	Dec 1, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1487013	10-2013-7006051	Dec 1, 2010	Issued
Empire Technology Development LLC	United States of America	9398516	14/506220	Oct 3, 2014	Issued
Empire Technology Development LLC	United States of America	9936375	15/156635	May 17, 2016	Issued
Empire Technology Development LLC	United States of America	8288455	13/391580	Feb 21, 2012	Issued
Empire Technology Development LLC	United States of America	8785523	13/604781	Sep 6, 2012	Issued
Empire Technology Development LLC	China	ZL201180074597.9	201180074597.9	Dec 6, 2011	Issued
Empire Technology Development LLC	United States of America	8385389	13/057082	Feb 1, 2011	Issued
Empire Technology Development LLC	European Patent Office	2636155	10859364.1	Nov 3, 2010	Issued
Empire Technology Development LLC	Japan	5497968	2013-537645	Nov 3, 2010	Issued

Empire Technology Development LLC	Republic of Korea	10-1371434	10-2013-7014257	Nov 3, 2010	Issued
Empire Technology Development LLC	United Kingdom	2636155	10859364.1	Nov 3, 2010	Issued
Empire Technology Development LLC	Germany	2636155	602010039618.5	Nov 3, 2010	Issued
Empire Technology Development LLC	France	2636155	10859364.1	Nov 3, 2010	Issued
Empire Technology Development LLC	Austria	2636155	10859364.1	Nov 3, 2010	Issued
Empire Technology Development LLC	China		201610842777.1	Nov 3, 2010	Published
Empire Technology Development LLC	United States of America	8671347	13/499402	Mar 30, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1359410	10-2013-7018470	Jan 7, 2011	Issued
Empire Technology Development LLC	Japan	5507771	2013-547450	Jan 7, 2011	Issued
Empire Technology Development LLC	China	ZL201180064377.8	201180064377.8	Jan 7, 2011	Issued
Empire Technology Development LLC	European Patent Office	2661917	11855022.7	Jan 7, 2011	Issued
Empire Technology Development LLC	United States of America	9547408	14/069073	Oct 31, 2013	Issued
Empire Technology Development LLC	Germany	2661917	602011030856.4	Jan 7, 2011	Issued
Empire Technology Development LLC	United Kingdom	2661917	EP11855022.7	Jan 7, 2011	Issued
Empire Technology Development LLC	France	2661917	EP11855022.7	Jan 7, 2011	Issued
Empire Technology Development LLC	United States of America	9736561	14/054851	Oct 16, 2013	Issued
Empire Technology Development LLC	United States of America	8887073	13/059826	Feb 18, 2011	Issued
Empire Technology Development LLC	China	ZL201080070058.3	201080070058.3	Dec 1, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1532846	10-2013-7006117	Dec 1, 2010	Issued
Empire Technology Development LLC	Germany		112010006047.9	Dec 1, 2010	Published
Empire Technology Development LLC	United States of America	8532340	13/061677	Mar 1, 2011	Issued
Empire Technology Development LLC	China	ZL201080066827.2	201080066827.2	Sep 30, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1396370	10-2012-7029384	Sep 30, 2010	Issued
Empire Technology Development LLC	Japan	5592014	2013-524831	Sep 30, 2010	Issued
Empire Technology Development LLC	United States of America	8989395	13/127798	May 5, 2011	Issued
Empire Technology Development LLC	China	ZL201080070076.1	201080070076.1	Dec 7, 2010	Issued
Empire Technology Development LLC	Japan	5750167	2013-541970	Dec 7, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1521478	10-2013-7017789	Dec 7, 2010	Issued
Empire Technology Development LLC	United States of America	9218820	14/632457	Feb 26, 2015	Issued
Empire Technology Development LLC	United States of America	8603216	13/388142	Jan 31, 2012	Issued
Empire Technology Development LLC	China	ZL201180068989.4	201180068989.4	Apr 18, 2011	Issued
Empire Technology Development LLC	United States of America	9611521	14/074329	Nov 7, 2013	Issued
Empire Technology Development LLC	United States of America	9289781	13/144869	Jul 15, 2011	Issued
Empire Technology Development LLC	China	ZL201180064972.1	201180064972.1	Mar 18, 2011	Issued
Empire Technology Development LLC	United States of America	8897244	13/580648	Aug 22, 2012	Issued
Empire Technology Development LLC	China	ZL201080070178.3	201080070178.3	Dec 28, 2010	Issued

Empire Technology Development LLC	Japan	5666721	2013-546099	Dec 28, 2010	Issued
Empire Technology Development LLC	Republic of Korea	10-1457604	10-2013-7018192	Dec 28, 2010	Issued
Empire Technology Development LLC	European Patent Office		10861444.7	Dec 28, 2010	Marked for Impairing
Empire Technology Development LLC	United States of America	9061915	13/147266	Aug 1, 2011	Issued
Empire Technology Development LLC	China	ZL201180065157.7	201180065157.7	Mar 9, 2011	Issued
Empire Technology Development LLC	United States of America	9143267	13/500542	Apr 5, 2012	Issued
Empire Technology Development LLC	Japan	5930057	2014-538765	Oct 27, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1643976	10-2014-7011746	Oct 27, 2011	Issued
Empire Technology Development LLC	United States of America	8812681	13/262825	Oct 3, 2011	Issued
Empire Technology Development LLC	China	ZL201180071594.X	201180071594.X	Apr 13, 2011	Issued
Empire Technology Development LLC	Japan	6051203	2014-505112	Apr 13, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1526517	10-2013-7029650	Apr 13, 2011	Issued
Empire Technology Development LLC	European Patent Office		11863684.4	Apr 13, 2011	Published
Empire Technology Development LLC	United States of America	8974594	13/139583	Jun 14, 2011	Issued
Empire Technology Development LLC	China	ZL201180070593.3	201180070593.3	Mar 3, 2011	Issued
Empire Technology Development LLC	European Patent Office	2680791	11860065.9	Mar 3, 2011	Issued
Empire Technology Development LLC	Germany	2680791	602011026279.3	Mar 3, 2011	Issued
Empire Technology Development LLC	France	2680791	11860065.9	Mar 3, 2011	Issued
Empire Technology Development LLC	United Kingdom	2680791	11860065.9	Mar 3, 2011	Issued
Empire Technology Development LLC	United States of America	8546617	13/554783	Jul 20, 2012	Issued
Empire Technology Development LLC	United States of America	9352485	13/974402	Aug 23, 2013	Issued
Empire Technology Development LLC	United States of America	8956377	13/514521	Jun 7, 2012	Issued
Empire Technology Development LLC	United States of America	8541094	13/130818	May 24, 2011	Issued
Empire Technology Development LLC	United States of America	9422712	13/975282	Aug 23, 2013	Issued
Empire Technology Development LLC	United States of America	8534022	13/139328	Jun 13, 2011	Issued
Empire Technology Development LLC	China	ZL201380076460.6	201380076460.6	Mar 15, 2013	Issued
Empire Technology Development LLC	United States of America	8968649	13/382384	Jan 5, 2012	Issued
Empire Technology Development LLC	China	ZL201180070550.5	201180070550.5	May 16, 2011	Issued
Empire Technology Development LLC	China	ZL201180069687.9	201180069687.9	Apr 13, 2011	Issued
Empire Technology Development LLC	United States of America	9868641	15/071067	Mar 15, 2016	Issued
Empire Technology Development LLC	United States of America	8941751	13/264236	Oct 13, 2011	Issued
Empire Technology Development LLC	United States of America	9058165	13/264702	Oct 14, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1552605	10-2013-7023676	May 5, 2011	Issued
Empire Technology Development LLC	United States of America	9319456	13/816552	Feb 12, 2013	Issued
Empire Technology Development LLC	China	ZL201180068745.6	201180068745.6	Mar 29, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1561565	10-2013-7011523	Mar 29, 2011	Issued

Empire Technology Development LLC	United States of America	9607578 13/144401	Jul 13, 2011	Issued
Empire Technology Development LLC	China	ZL201180053250.6	Mar 8, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1564955 10-2013-7010702	Mar 8, 2011	Issued
Empire Technology Development LLC	United States of America	8799618 13/503628	Apr 23, 2012	Issued
Empire Technology Development LLC	United States of America	9672145 14/332878	Jul 16, 2014	Issued
Empire Technology Development LLC	United States of America	9898401 15/613349	Jun 5, 2017	Issued
Empire Technology Development LLC	United States of America	9491445 13/263417	Oct 7, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1569602 10-2013-7023672	May 5, 2011	Issued
Empire Technology Development LLC	Japan	5863134 2014-506377	May 5, 2011	Issued
Empire Technology Development LLC	United States of America	9094888 13/263835	Oct 10, 2011	Issued
Empire Technology Development LLC	China	ZL201180071915.6	Apr 29, 2011	Issued
Empire Technology Development LLC	Japan	5806389 2014-508328	Apr 29, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1565478 10-2013-7031423	Apr 29, 2011	Issued
Empire Technology Development LLC	European Patent Office	2702805 11864569.6	Apr 29, 2011	Issued
Empire Technology Development LLC	United States of America	9980185 14/797703	Jul 13, 2015	Issued
Empire Technology Development LLC	Japan	6068588 2015-173468	Sep 3, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1759665 10-2015-7031080	Oct 28, 2015	Issued
Empire Technology Development LLC	United Kingdom	2702805 11864569.6	Apr 29, 2011	Issued
Empire Technology Development LLC	Germany	2702805 602011043047.5	Apr 29, 2011	Issued
Empire Technology Development LLC	France	2702805 11864569.6	Apr 29, 2011	Issued
Empire Technology Development LLC	United States of America	15/979,209	May 14, 2018	Pending
Empire Technology Development LLC	China	201710316268.X	Apr 29, 2011	Published
Empire Technology Development LLC	Hong Kong	18100392.4	Jan 11, 2018	Published
Empire Technology Development LLC	European Patent Office	17191857.6	Apr 29, 2011	Published
Empire Technology Development LLC	United States of America	9212245 13/980535	Jul 18, 2013	Issued
Empire Technology Development LLC	United States of America	8507294 13/500052	Apr 3, 2012	Issued
Empire Technology Development LLC	China	ZL201180071457.6	Jul 13, 2011	Issued
Empire Technology Development LLC	Japan	5564155 2014-515797	Jul 13, 2011	Issued
Empire Technology Development LLC	United States of America	9257089 13/380301	Dec 22, 2011	Issued
Empire Technology Development LLC	China	ZL201180054980.8	Feb 25, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1482025 10-2013-7010077	Feb 25, 2011	Issued
Empire Technology Development LLC	United States of America	9818227 14/979130	Dec 22, 2015	Issued
Empire Technology Development LLC	China	201610218255.4	Feb 25, 2011	Published
Empire Technology Development LLC	United States of America	8761290 13/133942	Jun 9, 2011	Issued
Empire Technology Development LLC	China	ZL201180066266.0	Jan 28, 2011	Issued
Empire Technology Development LLC	Japan	5663670 2013-551950	Jan 28, 2011	Issued

Empire Technology Development LLC	Republic of Korea	10-1524391	10-2013-7019178	Jan 28, 2011	Issued
Empire Technology Development LLC	European Patent Office		11857239.5	Jan 28, 2011	Published
Empire Technology Development LLC	United States of America	9671140	13/384859	Jan 19, 2012	Issued
Empire Technology Development LLC	China	ZL201180073616.6	201180073616.6	Sep 21, 2011	Issued
Empire Technology Development LLC	United States of America	9157669	13/145948	Jul 22, 2011	Issued
Empire Technology Development LLC	United States of America	8739553	13/386736	Jan 24, 2012	Issued
Empire Technology Development LLC	China	ZL201180073606.2	201180073606.2	Sep 21, 2011	Issued
Empire Technology Development LLC	United States of America	9310109	14/259663	Apr 23, 2014	Issued
Empire Technology Development LLC	United States of America	9258680	13/515001	Jun 11, 2012	Issued
Empire Technology Development LLC	United States of America	9894481	14/973721	Dec 17, 2015	Issued
Empire Technology Development LLC	United States of America	10136258	15/877354	Jan 22, 2018	Issued
Empire Technology Development LLC	United States of America	8797715	13/142530	Jun 28, 2011	Issued
Empire Technology Development LLC	United States of America	9468595	14/440344	May 1, 2015	Issued
Empire Technology Development LLC	United States of America	9238774	13/940024	Jul 11, 2013	Issued
Empire Technology Development LLC	United States of America	8889472	13/260899	Sep 28, 2011	Issued
Empire Technology Development LLC	United States of America	9117818	14/538202	Nov 11, 2014	Issued
Empire Technology Development LLC	United States of America	8785521	13/143726	Jul 7, 2011	Issued
Empire Technology Development LLC	United States of America	9304898	13/497442	Mar 21, 2012	Issued
Empire Technology Development LLC	United States of America	10007605	14/859322	Sep 20, 2015	Issued
Empire Technology Development LLC	United States of America	8691284	13/443576	Apr 10, 2012	Issued
Empire Technology Development LLC	United States of America	8867515	13/503624	Apr 23, 2012	Issued
Empire Technology Development LLC	United States of America	9469941	13/461475	May 1, 2012	Issued
Empire Technology Development LLC	China	ZL201180071069.8	201180071069.8	Jul 1, 2011	Issued
Empire Technology Development LLC	Japan	5844462	2014-518523	Jul 1, 2011	Issued
Empire Technology Development LLC	United States of America	8902853	13/266104	Oct 24, 2011	Issued
Empire Technology Development LLC	China	ZL201180071215.7	201180071215.7	May 27, 2011	Issued
Empire Technology Development LLC	European Patent Office		11866872.2	May 27, 2011	Published
Empire Technology Development LLC	United States of America	9227099	13/517182	Jun 19, 2012	Issued
Empire Technology Development LLC	United States of America	8565203	13/140102	Jun 16, 2011	Issued
Empire Technology Development LLC	China	ZL201180069451.5	201180069451.5	Mar 22, 2011	Issued
Empire Technology Development LLC	European Patent Office	2689604	11861531.9	Mar 22, 2011	Issued
Empire Technology Development LLC	Japan	5487366	2014-501049	Mar 22, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1365280	10-2013-7024567	Mar 22, 2011	Issued
Empire Technology Development LLC	United Kingdom	2689604	11861531.9	Mar 22, 2011	Issued
Empire Technology Development LLC	France	2689604	11861531.9	Mar 22, 2011	Issued
Empire Technology Development LLC	Germany	2689604	602011041809.2	Mar 22, 2011	Issued

Empire Technology Development LLC	United States of America	9171674 13/260234	Sep 23, 2011	Issued
Empire Technology Development LLC	China	ZL201180071456.1	Apr 6, 2011	Issued
Empire Technology Development LLC	United States of America	9793065 14/850826	Sep 10, 2015	Issued
Empire Technology Development LLC	United States of America	8761023 13/139240	Jun 10, 2011	Issued
Empire Technology Development LLC	China	ZL201180069125.4	Mar 11, 2011	Issued
Empire Technology Development LLC	Japan	5663105	Mar 11, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1512922	Mar 11, 2011	Issued
Empire Technology Development LLC	United States of America	10-2013-7025519	Mar 11, 2011	Issued
Empire Technology Development LLC	United States of America	9834726 14/655293	Jun 24, 2015	Issued
Empire Technology Development LLC	United States of America	9856381 14/913239	Feb 19, 2016	Issued
Empire Technology Development LLC	United States of America	8842416 13/202082	Aug 17, 2011	Issued
Empire Technology Development LLC	China	ZL201180070596.7	May 17, 2011	Issued
Empire Technology Development LLC	United States of America	9230797 13/391038	Feb 17, 2012	Issued
Empire Technology Development LLC	China	ZL201180072344.8	May 26, 2011	Issued
Empire Technology Development LLC	United States of America	8986399 13/319834	Nov 10, 2011	Issued
Empire Technology Development LLC	China	ZL201180070373.0	May 25, 2011	Issued
Empire Technology Development LLC	United States of America	9338257 13/389432	Feb 7, 2012	Issued
Empire Technology Development LLC	Japan	6120781	Mar 18, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1494121	Mar 18, 2011	Issued
Empire Technology Development LLC	United States of America	10-2013-7025258	Feb 19, 2016	Issued
Empire Technology Development LLC	United States of America	9826065 15/047739	Nov 17, 2017	Published
Empire Technology Development LLC	United States of America	15/815,823	Apr 1, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	15/026,915	Oct 2, 2013	Marked for Impairing
Empire Technology Development LLC	China	201380079988.9	Dec 28, 2011	Issued
Empire Technology Development LLC	United States of America	9245307 13/381329	Jun 1, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1547740	Jan 11, 2012	Issued
Empire Technology Development LLC	United States of America	8465833 13/383516	Aug 30, 2011	Issued
Empire Technology Development LLC	China	ZL201180072299.6	Aug 30, 2011	Issued
Empire Technology Development LLC	Japan	5952906	Nov 30, 2011	Issued
Empire Technology Development LLC	United States of America	2014-523904	Nov 30, 2011	Issued
Empire Technology Development LLC	China	9162002 13/375262	Aug 19, 2011	Issued
Empire Technology Development LLC	Japan	ZL201180072379.1	Aug 19, 2011	Issued
Empire Technology Development LLC	United States of America	5788599	Jan 10, 2012	Issued
Empire Technology Development LLC	China	8771462 13/383358	Aug 10, 2011	Issued
Empire Technology Development LLC	Japan	ZL201180072437.0	Aug 10, 2011	Issued
Empire Technology Development LLC	United States of America	2014-522806	Aug 10, 2011	Issued
Empire Technology Development LLC	China	5952905	Feb 13, 2012	Issued
Empire Technology Development LLC	United States of America	8532672 13/390264	Aug 25, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1513829	Aug 25, 2011	Issued
Empire Technology Development LLC	China	ZL201180072657.3	Aug 25, 2011	Issued



Empire Technology Development LLC	United States of America	9512013	13/519806	Jun 28, 2012	Issued
Empire Technology Development LLC	China	ZL201180070479.0	201180070479.0	May 31, 2011	Issued
Empire Technology Development LLC	United States of America	9263196	13/519569	Jun 27, 2012	Issued
Empire Technology Development LLC	United States of America	9004172	13/512700	May 30, 2012	Issued
Empire Technology Development LLC	China	ZL201180072860.0	201180072860.0	Sep 1, 2011	Issued
Empire Technology Development LLC	Australia	2011375724	2011375724	Sep 1, 2011	Issued
Empire Technology Development LLC	Canada	2,840,368	2,840,368	Sep 1, 2011	Issued
Empire Technology Development LLC	United States of America	8780715	13/255905	Sep 10, 2011	Issued
Empire Technology Development LLC	United States of America	8909157	13/142280	Jun 26, 2011	Issued
Empire Technology Development LLC	United States of America	9098406	13/521908	Jul 12, 2012	Issued
Empire Technology Development LLC	United States of America	8382889	13/389582	Feb 8, 2012	Issued
Empire Technology Development LLC	United States of America	8629266	13/650722	Oct 12, 2012	Issued
Empire Technology Development LLC	China	ZL201180074337.1	201180074337.1	Nov 9, 2011	Issued
Empire Technology Development LLC	Japan	5813238	2014-533291	Nov 9, 2011	Issued
Empire Technology Development LLC	United States of America	9109994	13/642018	Oct 18, 2012	Issued
Empire Technology Development LLC	United States of America	8861752	13/390337	Feb 14, 2012	Issued
Empire Technology Development LLC	Australia	2011374985	2011374985	Aug 16, 2011	Issued
Empire Technology Development LLC	European Patent Office	2745536	11870957.5	Aug 16, 2011	Issued
Empire Technology Development LLC	Japan	5859648	2014-525972	Aug 16, 2011	Issued
Empire Technology Development LLC	Canada	2,845,204	2,845,204	Aug 16, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1568825	10-2014-7006943	Aug 16, 2011	Issued
Empire Technology Development LLC	China	ZL201180072868.7	201180072868.7	Aug 16, 2011	Issued
Empire Technology Development LLC	Israel	230953	230953	Aug 16, 2011	Issued
Empire Technology Development LLC	United States of America	9866948	14/483120	Sep 10, 2014	Issued
Empire Technology Development LLC	United Kingdom	2745536	EP11870957.5	Aug 16, 2011	Issued
Empire Technology Development LLC	Germany	2745536	602011023533.8	Aug 16, 2011	Issued
Empire Technology Development LLC	France	2745536	EP11870957.5	Aug 16, 2011	Issued
Empire Technology Development LLC	European Patent Office	15200544.3	15200544.3	Aug 16, 2011	Published
Empire Technology Development LLC	United States of America	15/854,117	15/854,117	Dec 26, 2017	Published
Empire Technology Development LLC	United States of America	8221711	13/386990	Jan 25, 2012	Issued
Empire Technology Development LLC	China	ZL201180072345.2	201180072345.2	Sep 13, 2011	Issued
Empire Technology Development LLC	Japan	5699254	2014-528346	Sep 13, 2011	Issued
Empire Technology Development LLC	United States of America	8747947	13/377971	Dec 13, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1405256	10-2012-7013781	Sep 16, 2011	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1455877	101102497	Jan 20, 2012	Issued
Empire Technology Development LLC	Germany	112011100116.9	112011100116.9	Sep 16, 2011	Published

Empire Technology Development LLC	United States of America	14/265,991	Apr 30, 2014	Published
Empire Technology Development LLC	United States of America	9011968 13/391158	Feb 17, 2012	Issued
Empire Technology Development LLC	Japan	5779721 2014-529668	Sep 16, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1629869 10-2014-7003623	Sep 16, 2011	Issued
Empire Technology Development LLC	United States of America	9938151 14/657886	Mar 13, 2015	Issued
Empire Technology Development LLC	China	201180073451.2	Sep 16, 2011	Marked for Impairing
Empire Technology Development LLC	China	ZL201180018749.3 201180018749.3	May 3, 2011	Issued
Empire Technology Development LLC	Japan	5784706 2013-508094	May 3, 2011	Issued
Empire Technology Development LLC	United States of America	8431098 13/377085	Dec 8, 2011	Issued
Empire Technology Development LLC	China	ZL201180071035.9 201180071035.9	Jul 14, 2011	Issued
Empire Technology Development LLC	United States of America	8845780 13/386095	Jan 20, 2012	Issued
Empire Technology Development LLC	China	ZL201180072362.6 201180072362.6	Aug 16, 2011	Issued
Empire Technology Development LLC	Japan	5820070 2014-523900	Aug 16, 2011	Issued
Empire Technology Development LLC	United States of America	9376732 14/480189	Sep 8, 2014	Issued
Empire Technology Development LLC	United States of America	9058687 13/319500	Nov 8, 2011	Issued
Empire Technology Development LLC	China	ZL201180071219.5 201180071219.5	Jun 8, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1569600 10-2013-7019405	Jun 8, 2011	Issued
Empire Technology Development LLC	Japan	5847924 2014-509275	Jun 8, 2011	Issued
Empire Technology Development LLC	United States of America	8916513 13/554633	Jul 20, 2012	Issued
Empire Technology Development LLC	United States of America	8951611 13/387546	Jan 27, 2012	Issued
Empire Technology Development LLC	China	ZL201180071336.1 201180071336.1	Jul 11, 2011	Issued
Empire Technology Development LLC	Japan	5824576 2014-511333	Jul 11, 2011	Issued
Empire Technology Development LLC	United States of America	8941363 13/264710	Oct 14, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1563066 10-2013-7019334	May 27, 2011	Issued
Empire Technology Development LLC	Japan	5847923 2014-506394	May 27, 2011	Issued
Empire Technology Development LLC	United States of America	9091634 13/496064	Mar 14, 2012	Issued
Empire Technology Development LLC	China	ZL201180072755.7 201180072755.7	Sep 16, 2011	Issued
Empire Technology Development LLC	Japan	5816756 2014-529667	Sep 16, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1619309 10-2014-7003622	Sep 16, 2011	Issued
Empire Technology Development LLC	United States of America	8520505 13/642485	Oct 19, 2012	Issued
Empire Technology Development LLC	China	ZL201280074713.1 201280074713.1	May 14, 2012	Issued
Empire Technology Development LLC	European Patent Office	2850744 12876978.3	May 14, 2012	Issued
Empire Technology Development LLC	Germany	2850744 602012033586.6	May 14, 2012	Issued
Empire Technology Development LLC	France	2850744 12876978.3	May 14, 2012	Issued
Empire Technology Development LLC	United Kingdom	2850744 12876978.3	May 14, 2012	Issued
Empire Technology Development LLC	United States of America	8813175 13/498424	Mar 27, 2012	Issued



Empire Technology Development LLC	Republic of Korea	10-1672227	10-2013-7034765	Aug 15, 2011	Issued
Empire Technology Development LLC	Japan	5718525	2014-522807	Aug 15, 2011	Issued
Empire Technology Development LLC	United States of America	9547438	13/320904	Nov 16, 2011	Issued
Empire Technology Development LLC	China	ZL201180071787.5	201180071787.5	Jun 21, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1516513	10-2013-7022939	Jun 21, 2011	Issued
Empire Technology Development LLC	United States of America	9823752	15/361638	Nov 28, 2016	Issued
Empire Technology Development LLC	United States of America	9182135	13/321081	Nov 17, 2011	Issued
Empire Technology Development LLC	United States of America	9965358	13/264672	Oct 14, 2011	Issued
Empire Technology Development LLC	China	201180068419.5	201180068419.5	May 27, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1572737	10-2013-7019307	May 27, 2011	Issued
Empire Technology Development LLC	United States of America	9062210	13/383794	Jan 12, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1709171	10-2013-7033296	Jul 7, 2011	Issued
Empire Technology Development LLC	China	ZL201180072141.9	201180072141.9	Jul 7, 2011	Issued
Empire Technology Development LLC	Japan	5914646	2014-516959	Jul 7, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1825397	10-2015-7030665	Oct 23, 2015	Issued
Empire Technology Development LLC	United States of America	14/640,933		Mar 6, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9770660	13/703338	Dec 10, 2012	Issued
Empire Technology Development LLC	United States of America	8554196	13/321792	Nov 21, 2011	Issued
Empire Technology Development LLC	United States of America	8774814	14/046376	Oct 4, 2013	Issued
Empire Technology Development LLC	China	ZL201180072969.4	201180072969.4	Aug 24, 2011	Issued
Empire Technology Development LLC	Japan	5798687	2014-527131	Aug 24, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1533672	10-2014-7005318	Aug 24, 2011	Issued
Empire Technology Development LLC	European Patent Office		11871126.6	Aug 24, 2011	Published
Empire Technology Development LLC	United States of America	8958071	13/509699	May 14, 2012	Issued
Empire Technology Development LLC	China	201180074642.0	201180074642.0	Nov 15, 2011	Issued
Empire Technology Development LLC	Japan	5926810	2014-538774	Nov 15, 2011	Issued
Empire Technology Development LLC	United States of America	9331221	13/579929	Aug 18, 2012	Issued
Empire Technology Development LLC	United States of America	9350012	13/390329	Feb 13, 2012	Issued
Empire Technology Development LLC	China	ZL201180073571.2	201180073571.2	Sep 23, 2011	Issued
Empire Technology Development LLC	Japan	5870194	2014-530644	Sep 23, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1698402	10-2014-7009386	Sep 23, 2011	Issued
Empire Technology Development LLC	United States of America	10026030	13/578419	Aug 10, 2012	Issued
Empire Technology Development LLC	United States of America	8574384	13/702013	Dec 4, 2012	Issued
Empire Technology Development LLC	United States of America	8834988	13/262089	Sep 29, 2011	Issued
Empire Technology Development LLC	China	ZL201180011134.8	201180011134.8	Apr 21, 2011	Issued
Empire Technology Development LLC	Japan	5504376	2013-505215	Apr 21, 2011	Issued

Empire Technology Development LLC	European Patent Office	11772691.9	Apr 21, 2011	Published
Empire Technology Development LLC	China	ZL201180072132.X	Jul 6, 2011	Issued
Empire Technology Development LLC	Republic of Korea	10-1680948	Jul 6, 2011	Issued
Empire Technology Development LLC	European Patent Office	2729900	Jul 6, 2011	Issued
Empire Technology Development LLC	Japan	6033298	Jul 6, 2011	Issued
Empire Technology Development LLC	United States of America	10015559	Feb 9, 2016	Issued
Empire Technology Development LLC	Germany	2729900	Jul 6, 2011	Issued
Empire Technology Development LLC	United Kingdom	2729900	Jul 6, 2011	Issued
Empire Technology Development LLC	France	2729900	Jul 6, 2011	Issued
Empire Technology Development LLC	United States of America	9105207	Sep 21, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1711358	Nov 3, 2016	Issued
Empire Technology Development LLC	United States of America	9690457	Mar 7, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1844395	Aug 24, 2012	Issued
Empire Technology Development LLC	Japan	6289468	Aug 24, 2012	Issued
Empire Technology Development LLC	Japan	6356869	Aug 24, 2012	Issued
Empire Technology Development LLC	United States of America	15/633,636	Jun 26, 2017	Published
Empire Technology Development LLC	Republic of Korea	9607436	Aug 24, 2012	Published
Empire Technology Development LLC	United States of America	10-1780034	Apr 15, 2013	Issued
Empire Technology Development LLC	Republic of Korea	2015-529763	Aug 27, 2012	Issued
Empire Technology Development LLC	Japan	5980432	Aug 27, 2012	Issued
Empire Technology Development LLC	European Patent Office	12883675.6	Aug 27, 2012	Published
Empire Technology Development LLC	United States of America	15/469,933	Mar 27, 2017	Published
Empire Technology Development LLC	United States of America	8948690	Mar 13, 2012	Issued
Empire Technology Development LLC	China	ZL201180073555.3	Sep 21, 2011	Issued
Empire Technology Development LLC	Japan	5851042	Sep 21, 2011	Issued
Empire Technology Development LLC	United States of America	9294159	Dec 16, 2014	Issued
Empire Technology Development LLC	European Patent Office	11872638.9	Sep 21, 2011	Published
Empire Technology Development LLC	United States of America	8655040	Jan 3, 2013	Issued
Empire Technology Development LLC	United States of America	9174871	Jul 19, 2013	Issued
Empire Technology Development LLC	United States of America	9683106	Feb 12, 2013	Issued
Empire Technology Development LLC	United States of America	8947855	Feb 6, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1713789	Jun 28, 2012	Issued
Empire Technology Development LLC	United States of America	8924754	Sep 21, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1621776	Sep 2, 2012	Issued
Empire Technology Development LLC	United States of America	9454552	Feb 8, 2013	Issued
Empire Technology Development LLC	United States of America	8907045	Mar 14, 2013	Issued

Empire Technology Development LLC	United States of America	8855553 13/574246	Jul 19, 2012	Issued
Empire Technology Development LLC	China	ZL201280000732.X	Mar 2, 2012	Issued
Empire Technology Development LLC	United States of America	8665434 13/640360	Oct 10, 2012	Issued
Empire Technology Development LLC	China	ZL201280074481.X	Jun 4, 2012	Issued
Empire Technology Development LLC	United States of America	8987606 13/511117	May 21, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1442489	May 24, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1370119	Dec 13, 2011	Issued
Empire Technology Development LLC	Japan	5749353	Dec 13, 2011	Issued
Empire Technology Development LLC	United States of America	8722354 13/824105	Mar 15, 2013	Issued
Empire Technology Development LLC	United States of America	9068985 14/226398	Feb 6, 2014	Issued
Empire Technology Development LLC	United States of America	9068120 13/822221	Mar 11, 2013	Issued
Empire Technology Development LLC	Germany	112012006785.1	Sep 9, 2012	Marked for Impairing
Empire Technology Development LLC	United States of America	9133045 13/978239	Jul 3, 2013	Issued
Empire Technology Development LLC	United States of America	9189271 13/497529	Mar 21, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1650424	Sep 13, 2011	Issued
Empire Technology Development LLC	China	ZL201180073331.2	Sep 13, 2011	Issued
Empire Technology Development LLC	United States of America	8524919 13/445567	Apr 12, 2012	Issued
Empire Technology Development LLC	United States of America	8524920 13/614279	Sep 13, 2012	Issued
Empire Technology Development LLC	United States of America	9345997 13/956941	Aug 1, 2013	Issued
Empire Technology Development LLC	China	ZL201180074003.4	Oct 18, 2011	Issued
Empire Technology Development LLC	Japan	5806409	Oct 18, 2011	Issued
Empire Technology Development LLC	United States of America	8979978 13/577859	Aug 8, 2012	Issued
Empire Technology Development LLC	China	ZL201280071545.0	Jan 26, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1638060	Jan 26, 2012	Issued
Empire Technology Development LLC	United States of America	8918794 13/389796	Feb 9, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1629861	Aug 25, 2011	Issued
Empire Technology Development LLC	China	ZL201180073047.5	Aug 25, 2011	Issued
Empire Technology Development LLC	United States of America	8911961 13/823305	Mar 14, 2013	Issued
Empire Technology Development LLC	United States of America	8937140 13/520876	Jul 6, 2012	Issued
Empire Technology Development LLC	United States of America	9279071 14/566138	Dec 10, 2014	Issued
Empire Technology Development LLC	United States of America	9056282 13/640272	Oct 9, 2012	Issued
Empire Technology Development LLC	China	ZL201280068318.2	Jan 27, 2012	Issued
Empire Technology Development LLC	United States of America	9545600 14/703730	May 4, 2015	Issued
Empire Technology Development LLC	United States of America	8691975 13/637249	Sep 25, 2012	Issued
Empire Technology Development LLC	China	ZL201280073689.X	Jun 4, 2012	Issued
Empire Technology Development LLC	United States of America	9270491 13/511651	May 23, 2012	Issued

Empire Technology Development LLC	Republic of Korea	10-1616211	10-2014-7003914	Nov 14, 2011	Issued
Empire Technology Development LLC	China	ZL201180074482.X	201180074482.X	Nov 14, 2011	Issued
Empire Technology Development LLC	United States of America	9213844	13/389380	Feb 7, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1603289	10-2014-7000008	Aug 25, 2011	Issued
Empire Technology Development LLC	China	ZL201180072987.2	201180072987.2	Aug 25, 2011	Issued
Empire Technology Development LLC	United States of America	14/873,172		Oct 1, 2015	Published
Empire Technology Development LLC	United States of America	9373145	13/502088	Apr 13, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1638262	10-2014-7003121	Oct 17, 2011	Issued
Empire Technology Development LLC	China	ZL201180073665.X	201180073665.X	Oct 17, 2011	Issued
Empire Technology Development LLC	Japan	5925324	2014-534527	Oct 17, 2011	Issued
Empire Technology Development LLC	United States of America	15/145,920		May 4, 2016	Published
Empire Technology Development LLC	United States of America	8910173	13/580512	Aug 22, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1630749	10-2014-7008601	Nov 18, 2011	Issued
Empire Technology Development LLC	China	ZL201180073748.9	201180073748.9	Nov 18, 2011	Issued
Empire Technology Development LLC	United States of America	9460127	14/559563	Dec 3, 2014	Issued
Empire Technology Development LLC	United States of America	8959228	13/515052	Jun 11, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1554113	10-2014-7012948	Dec 23, 2011	Issued
Empire Technology Development LLC	China	ZL201180074333.3	201180074333.3	Dec 23, 2011	Issued
Empire Technology Development LLC	United States of America	9736043	14/593326	Jan 9, 2015	Issued
Empire Technology Development LLC	United States of America	8938634	13/514337	Jun 7, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1679487	10-2014-7017021	Jan 25, 2012	Issued
Empire Technology Development LLC	China	ZL201280049705.1	201280049705.1	Jan 25, 2012	Issued
Empire Technology Development LLC	Japan	6042454	2014-554699	Jan 25, 2012	Issued
Empire Technology Development LLC	United States of America	8526770	13/503781	Apr 24, 2012	Issued
Empire Technology Development LLC	United States of America	8947456	13/515404	Jun 12, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1521000	102111098	Mar 28, 2013	Issued
Empire Technology Development LLC	China	ZL200980141232.6	200980141232.6	Aug 12, 2009	Issued
Empire Technology Development LLC	United States of America	8859707	13/509321	May 11, 2012	Issued
Empire Technology Development LLC	United States of America	8937148	13/811758	Jan 23, 2013	Issued
Empire Technology Development LLC	United States of America	9181287	14/567875	Dec 11, 2014	Issued
Empire Technology Development LLC	China	ZL201280076919.8	201280076919.8	Sep 7, 2012	Issued
Empire Technology Development LLC	United States of America	9150734	13/522429	Jul 16, 2012	Issued
Empire Technology Development LLC	United States of America	9500392	13/813588	Jan 31, 2013	Issued
Empire Technology Development LLC	United States of America	9095772	13/519393	Jun 27, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1640904	10-2014-7020794	Feb 7, 2012	Issued
Empire Technology Development LLC	Japan	6333180	2014-556520	Feb 7, 2012	Issued

Empire Technology Development LLC	United States of America	9480914	14/736365	Jun 11, 2015	Issued
Empire Technology Development LLC	Japan		2017-073700	Feb 7, 2012	Published
Empire Technology Development LLC	United States of America	8858324	13/519730	Jun 28, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1593344	10-2014-7007910	Nov 10, 2011	Issued
Empire Technology Development LLC	United States of America	9498715	14/476648	Sep 3, 2014	Issued
Empire Technology Development LLC	United States of America	8890354	13/814996	Feb 8, 2013	Issued
Empire Technology Development LLC	United States of America	9662587	13/498909	Mar 28, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1581525	10-2013-7034283	Sep 22, 2011	Issued
Empire Technology Development LLC	United States of America		15/604,604	May 24, 2017	Published
Empire Technology Development LLC	United States of America	9619240	13/811280	Jan 21, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1497410	102103918	Feb 1, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1655137	10-2014-7024520	Feb 4, 2012	Issued
Empire Technology Development LLC	China	ZL201280071995.X	201280071995.X	Feb 4, 2012	Issued
Empire Technology Development LLC	United States of America	9064185	13/642502	Oct 19, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1633198	10-2014-7014744	Dec 28, 2011	Issued
Empire Technology Development LLC	United States of America	9214977	13/500907	Apr 7, 2012	Issued
Empire Technology Development LLC	United States of America		14/649,498	Jun 3, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9268587	13/579018	Aug 14, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1623297	10-2014-7028082	Apr 13, 2012	Issued
Empire Technology Development LLC	United States of America	8747709	13/577382	Aug 6, 2012	Issued
Empire Technology Development LLC	United States of America	8852468	14/260835	Apr 24, 2014	Issued
Empire Technology Development LLC	United States of America	9410088	14/480393	Sep 8, 2014	Issued
Empire Technology Development LLC	United States of America	8668372	13/640797	Oct 12, 2012	Issued
Empire Technology Development LLC	United States of America	9904002	14/400517	Nov 17, 2014	Issued
Empire Technology Development LLC	United States of America	9304946	13/813591	Jan 31, 2013	Issued
Empire Technology Development LLC	United States of America	8730833	13/642904	Oct 23, 2012	Issued
Empire Technology Development LLC	China	201280074466.5	201280074466.5	May 9, 2012	Issued
Empire Technology Development LLC	European Patent Office	2848024	12876136.8	May 9, 2012	Issued
Empire Technology Development LLC	United Kingdom	2848024	12876136.8	May 9, 2012	Issued
Empire Technology Development LLC	France	2848024	12876136.8	May 9, 2012	Issued
Empire Technology Development LLC	Germany	2848024	602012026202.8	May 9, 2012	Issued
Empire Technology Development LLC	United States of America	9047194	13/818485	Feb 25, 2013	Issued
Empire Technology Development LLC	United States of America	9196094	13/989858	May 28, 2013	Issued
Empire Technology Development LLC	United States of America	9851574	14/232797	Jan 14, 2014	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1491328	102103754	Jan 31, 2013	Issued
Empire Technology Development LLC	United States of America	9047700	14/239471	Feb 18, 2014	Issued

Empire Technology Development LLC	Republic of Korea	10-1648276	10-2014-7009167	Nov 9, 2011	Issued
Empire Technology Development LLC	Japan	5948429	2014-539916	Nov 9, 2011	Issued
Empire Technology Development LLC	United States of America	9280853	14/716194	May 19, 2015	Issued
Empire Technology Development LLC	United States of America	9077149	13/977482	Jun 28, 2013	Issued
Empire Technology Development LLC	United States of America	8635675	13/521440	Jul 10, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1614859	10-2014-7017193	Dec 2, 2011	Issued
Empire Technology Development LLC	China	ZL201180075157.5	201180075157.5	Dec 2, 2011	Issued
Empire Technology Development LLC	Japan	5646125	2014-542293	Dec 2, 2011	Issued
Empire Technology Development LLC	United States of America	9836514	13/502312	Apr 16, 2012	Issued
Empire Technology Development LLC	China	ZL201180074338.6	201180074338.6	Nov 7, 2011	Issued
Empire Technology Development LLC	Japan	6093773	2014-538772	Nov 7, 2011	Issued
Empire Technology Development LLC	United States of America	9135863	13/811220	Jan 18, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1497480	102113947	Apr 19, 2013	Issued
Empire Technology Development LLC	China	ZL201280072549.0	201280072549.0	Apr 23, 2012	Issued
Empire Technology Development LLC	United States of America	9047137	13/642403	Oct 19, 2012	Issued
Empire Technology Development LLC	United States of America	9207980	14/710307	May 12, 2015	Issued
Empire Technology Development LLC	United States of America	9103986	13/637206	Sep 25, 2012	Issued
Empire Technology Development LLC	United States of America	9318192	13/810324	Jan 15, 2013	Issued
Empire Technology Development LLC	United States of America	9231987	13/579131	Aug 15, 2012	Issued
Empire Technology Development LLC	China	ZL201280072338.7	201280072338.7	Apr 11, 2012	Issued
Empire Technology Development LLC	United States of America	9847987	14/943947	Nov 17, 2015	Issued
Empire Technology Development LLC	United States of America	9394646	13/883446	May 3, 2013	Issued
Empire Technology Development LLC	United States of America	9821493	15/174405	Jun 6, 2016	Issued
Empire Technology Development LLC	United States of America	9221040	13/579485	Aug 16, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1583748	10-2014-7017667	Dec 8, 2011	Issued
Empire Technology Development LLC	Japan	5851047	2014-545867	Dec 8, 2011	Issued
Empire Technology Development LLC	China		201180075379.7	Dec 8, 2011	Marked for Impairing
Empire Technology Development LLC	United States of America	8877872	13/882424	Apr 29, 2013	Issued
Empire Technology Development LLC	United States of America	9598452	14/394827	Oct 16, 2014	Issued
Empire Technology Development LLC	United States of America	8888590	13/521435	Jul 10, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1595076	10-2014-7018127	Dec 13, 2011	Issued
Empire Technology Development LLC	Japan	5896389	2014-547151	Dec 13, 2011	Issued
Empire Technology Development LLC	United States of America	8530861	13/577486	Aug 7, 2012	Issued
Empire Technology Development LLC	United States of America	9020468	13/497671	Mar 22, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1601116	10-2014-7021263	Dec 29, 2011	Issued
Empire Technology Development LLC	United States of America	9772950	14/437331	Apr 21, 2015	Issued



Empire Technology Development LLC	China	201280076665X	201280076665.X	Oct 25, 2012	Issued
Empire Technology Development LLC	United States of America	9120938	13/950851	Jul 25, 2013	Issued
Empire Technology Development LLC	India		0805/DELNP/2015	Jul 31, 2012	Published
Empire Technology Development LLC	United States of America	9270736	13/522016	Jul 12, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1603290	10-2014-7019284	Dec 14, 2011	Issued
Empire Technology Development LLC	China	ZL201180075103.9	201180075103.9	Dec 14, 2011	Issued
Empire Technology Development LLC	Japan	5937695	2014-547153	Dec 14, 2011	Issued
Empire Technology Development LLC	United States of America	9095141	13/761576	Feb 7, 2013	Issued
Empire Technology Development LLC	United States of America	9095142	13/812402	Jan 25, 2013	Issued
Empire Technology Development LLC	United States of America	8541556	13/738424	Jan 10, 2013	Issued
Empire Technology Development LLC	United States of America	9842040	14/396058	Oct 22, 2014	Issued
Empire Technology Development LLC	United States of America	15/836,167		Dec 8, 2017	Published
Empire Technology Development LLC	United States of America	9053057	13/877422	Apr 2, 2013	Issued
Empire Technology Development LLC	China	ZL201280077067.4	201280077067.4	Apr 15, 2015	Issued
Empire Technology Development LLC	China	9290598	13/749291	Sep 14, 2012	Issued
Empire Technology Development LLC	United States of America	ZL201280071920.1	201280071920.1	Jan 24, 2013	Issued
Empire Technology Development LLC	United States of America	9207963	13/634448	Mar 29, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1586469	10-2014-7022688	Sep 12, 2012	Issued
Empire Technology Development LLC	Japan	5937702	2014-555538	Feb 1, 2012	Issued
Empire Technology Development LLC	United States of America	9367292	13/582937	Feb 1, 2012	Issued
Empire Technology Development LLC	China	ZL201280073894.6	201280073894.6	Sep 5, 2012	Issued
Empire Technology Development LLC	United States of America	9103803	13/825492	Jun 11, 2012	Issued
Empire Technology Development LLC	China	ZL201280077608.3	201280077608.3	Mar 21, 2013	Issued
Empire Technology Development LLC	United States of America	9764304	13/879517	Oct 10, 2012	Issued
Empire Technology Development LLC	United States of America	8789047	13/512554	Dec 6, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1658070	10-2014-7012271	May 29, 2012	Issued
Empire Technology Development LLC	United States of America	9652272	14/301172	Jan 26, 2012	Issued
Empire Technology Development LLC	United States of America	9796857	14/654335	Jun 10, 2014	Issued
Empire Technology Development LLC	United States of America	9166890	13/634335	Jun 19, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1603928	10-2014-7020554	Sep 12, 2012	Issued
Empire Technology Development LLC	Japan	6019139	2014-556518	Feb 6, 2012	Issued
Empire Technology Development LLC	United States of America	9710969	13/878180	Feb 6, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1730473	10-2015-7007938	Apr 5, 2013	Issued
Empire Technology Development LLC	European Patent Office		12883785.3	Aug 27, 2012	Issued
Empire Technology Development LLC	United States of America		15/651,904	Aug 27, 2012	Published
				Jul 17, 2017	Published

Empire Technology Development LLC	Japan	2017-113075	Aug 27, 2012	Published
Empire Technology Development LLC	United States of America	13/884,116	May 8, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9411693 13/817695	Feb 19, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1659369 10-2015-7004898	Jul 31, 2012	Issued
Empire Technology Development LLC	United States of America	9054917 13/520464	Jul 3, 2012	Issued
Empire Technology Development LLC	United States of America	9678774 14/686608	Apr 14, 2015	Issued
Empire Technology Development LLC	United States of America	9390257 13/640307	Oct 9, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1668171 10-2014-7027924	Apr 4, 2012	Issued
Empire Technology Development LLC	China	ZL201280072222.3 201280072222.3	Apr 4, 2012	Issued
Empire Technology Development LLC	United States of America	8779070 13/761512	Feb 7, 2013	Issued
Empire Technology Development LLC	United States of America	8952102 14/297990	Jun 6, 2014	Issued
Empire Technology Development LLC	United States of America	15/462,994	Mar 20, 2017	Allowed
Empire Technology Development LLC	United States of America	9600402 13/700417	Nov 27, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1579029 10-2014-7028083	Apr 25, 2012	Issued
Empire Technology Development LLC	China	ZL201280072730.1 201280072730.1	Apr 25, 2012	Issued
Empire Technology Development LLC	United States of America	9215085 13/576471	Aug 1, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1558909 10-2014-7022556	Jan 19, 2012	Issued
Empire Technology Development LLC	China	ZL201280066066.X 201280066066.X	Jan 19, 2012	Issued
Empire Technology Development LLC	Japan	6055487 2014-553279	Jan 19, 2012	Issued
Empire Technology Development LLC	United States of America	8990788 13/521578	Jul 11, 2012	Issued
Empire Technology Development LLC	United States of America	9552295 13/880194	Apr 18, 2013	Issued
Empire Technology Development LLC	United States of America	13/879,544	Dec 6, 2014	Published
Empire Technology Development LLC	United States of America	9114423 13/809543	Jan 10, 2013	Issued
Empire Technology Development LLC	United States of America	9156702 13/809049	Jan 8, 2013	Issued
Empire Technology Development LLC	United States of America	14/857,316	Sep 17, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9322096 13/817533	Feb 18, 2013	Issued
Empire Technology Development LLC	United States of America	15/063,614	Mar 8, 2016	Published
Empire Technology Development LLC	United States of America	13/884,256	May 8, 2013	Allowed
Empire Technology Development LLC	United States of America	8990828 13/812400	Feb 11, 2013	Issued
Empire Technology Development LLC	United States of America	9471381 14/657716	Mar 13, 2015	Issued
Empire Technology Development LLC	China	2012800765534 201280076553.4	Aug 22, 2012	Issued
Empire Technology Development LLC	China	2018107500603	Aug 22, 2012	Pending
Empire Technology Development LLC	United States of America	13/985,523	Aug 14, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9291607 13/879751	Apr 16, 2013	Issued
Empire Technology Development LLC	United States of America	9084605 14/234990	Jan 24, 2014	Issued
Empire Technology Development LLC	China	ZL201380036229.4 201380036229.4	May 8, 2013	Issued



Empire Technology Development LLC	European Patent Office	2846709	13787961.5	May 8, 2013	Issued
Empire Technology Development LLC	United States of America	9545256	14/729368	Jun 3, 2015	Issued
Empire Technology Development LLC	France	2846709	13787961.5	May 8, 2013	Issued
Empire Technology Development LLC	Germany	2846709	602013036961.5	May 8, 2013	Issued
Empire Technology Development LLC	United Kingdom	2846709	13787961.5	May 8, 2013	Issued
Empire Technology Development LLC	United States of America	9405899	13/583706	Sep 10, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1657191	10-2015-7000257	Jun 6, 2012	Issued
Empire Technology Development LLC	United States of America	9840595	14/411025	Dec 23, 2014	Issued
Empire Technology Development LLC	United States of America	9295409	13/640283	Oct 9, 2012	Issued
Empire Technology Development LLC	United States of America	9376614	13/878531	Apr 9, 2013	Issued
Empire Technology Development LLC	United States of America	9988517	13/879700	Dec 6, 2014	Issued
Empire Technology Development LLC	China	ZL201280073770.8	201280073770.8	Jun 5, 2012	Issued
Empire Technology Development LLC	European Patent Office	2855540	12878222.4	Jun 5, 2012	Issued
Empire Technology Development LLC	Germany	2855540	12878222.4	Jun 5, 2012	Issued
Empire Technology Development LLC	France	2855540	12878222.4	Jun 5, 2012	Issued
Empire Technology Development LLC	United Kingdom	2855540	12878222.4	Jun 5, 2012	Issued
Empire Technology Development LLC	United States of America	9365330	13/819776	Feb 28, 2013	Issued
Empire Technology Development LLC	United States of America	15/152,159		May 11, 2016	Published
Empire Technology Development LLC	United States of America	9242298	13/789010	Mar 7, 2013	Issued
Empire Technology Development LLC	United States of America	9158689	13/982607	Jul 30, 2013	Issued
Empire Technology Development LLC	China	ZL201380072761.1	201380072761.1	Feb 11, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1638064	10-2015-7024430	Feb 11, 2013	Issued
Empire Technology Development LLC	United States of America	9126922	13/430090	Mar 26, 2012	Issued
Empire Technology Development LLC	United States of America	9656214	13/982344	Jul 29, 2013	Issued
Empire Technology Development LLC	United States of America	9544028	14/764696	Jul 30, 2015	Issued
Empire Technology Development LLC	China	ZL201380071928.2	201380071928.2	Jan 30, 2013	Issued
Empire Technology Development LLC	Germany	112013006535.5		Jan 30, 2013	Published
Empire Technology Development LLC	United States of America	8864892	13/811733	Jan 23, 2013	Issued
Empire Technology Development LLC	United States of America	9422406	14/491717	Sep 19, 2014	Issued
Empire Technology Development LLC	United States of America	8859735	13/885306	May 14, 2013	Issued
Empire Technology Development LLC	United States of America	8933660	13/810279	Jan 15, 2013	Issued
Empire Technology Development LLC	United States of America	8698096	13/879723	Apr 16, 2013	Issued
Empire Technology Development LLC	China	ZL201280076469.2	201280076469.2	Aug 16, 2012	Issued
Empire Technology Development LLC	United States of America	9275696	13/812967	Jan 29, 2013	Issued
Empire Technology Development LLC	United States of America	9077771	13/640046	Oct 9, 2012	Issued
Empire Technology Development LLC	United States of America	9486707	14/724713	May 28, 2015	Issued

Empire Technology Development LLC	United States of America	8790184	13/634502	Sep 12, 2012	Issued
Empire Technology Development LLC	United States of America	9588900	13/989798	May 26, 2013	Issued
Empire Technology Development LLC	United States of America	10049045	15/450020	Mar 5, 2017	Issued
Empire Technology Development LLC	United States of America	9147205	13/811643	Jan 22, 2013	Issued
Empire Technology Development LLC	United States of America	9057007	13/819889	Feb 28, 2013	Issued
Empire Technology Development LLC	China		201280077365.3	Nov 30, 2012	Published
Empire Technology Development LLC	China	ZL 2012800727119	201280072711.9	Apr 27, 2012	Issued
Empire Technology Development LLC	United States of America		13/634,013	Sep 11, 2012	Published
Empire Technology Development LLC	United States of America	9448921	13/879708	Apr 16, 2013	Issued
Empire Technology Development LLC	China	ZL201380070124.0	201380070124.0	Jan 11, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1741346	10-2015-7019981	Jan 11, 2013	Issued
Empire Technology Development LLC	United States of America	8891296	13/997890	Jun 25, 2013	Issued
Empire Technology Development LLC	United States of America	9424945	14/541588	Nov 14, 2014	Issued
Empire Technology Development LLC	China	ZL201380073919.7	201380073919.7	Feb 27, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1742462	10-2015-7023822	Feb 27, 2013	Issued
Empire Technology Development LLC	United States of America	9166930	13/823361	Mar 14, 2013	Issued
Empire Technology Development LLC	United States of America	9075648	13/582912	Sep 5, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1650646	10-2014-7027906	Apr 27, 2012	Issued
Empire Technology Development LLC	United States of America	9426048	14/725874	May 29, 2015	Issued
Empire Technology Development LLC	United States of America	9278175	14/009279	Oct 1, 2013	Issued
Empire Technology Development LLC	China	ZL201380036515.0	201380036515.0	May 8, 2013	Issued
Empire Technology Development LLC	European Patent Office	2846703	13786982.2	May 8, 2013	Issued
Empire Technology Development LLC	Germany	2846703	602013026629.8	May 8, 2013	Issued
Empire Technology Development LLC	United Kingdom	2846703	13786982.2	May 8, 2013	Issued
Empire Technology Development LLC	United States of America	9391927	13/995411	Jun 18, 2013	Issued
Empire Technology Development LLC	European Patent Office		12880527.2	Jul 3, 2012	Published
Empire Technology Development LLC	United States of America	9238712	13/827155	Mar 14, 2013	Issued
Empire Technology Development LLC	United States of America	8946364	13/817008	Feb 14, 2013	Issued
Empire Technology Development LLC	United States of America	9204807	14/006801	Sep 23, 2013	Issued
Empire Technology Development LLC	United States of America	9473426	14/005520	Sep 16, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1565265	103108408	Mar 11, 2014	Issued
Empire Technology Development LLC	China	ZL 201380074889.1	201380074889.1	Mar 20, 2013	Issued
Empire Technology Development LLC	United States of America		14/123,231	Dec 2, 2013	Marked for Impairing
Empire Technology Development LLC	Taiwan R.O.C.	1521317	103104420	Feb 11, 2014	Issued
Empire Technology Development LLC	United States of America	9990212	14/360657	May 27, 2014	Issued
Empire Technology Development LLC	China	ZL 2013800733190	201380073319.0	Feb 19, 2013	Issued

Empire Technology Development LLC	United States of America	8849757 13/640469	Oct 10, 2012	Issued
Empire Technology Development LLC	United States of America	9336217 14/470733	Aug 27, 2014	Issued
Empire Technology Development LLC	United States of America	9183019 13/635395	Sep 14, 2012	Issued
Empire Technology Development LLC	China	ZL201280072737.3	Apr 25, 2012	Issued
Empire Technology Development LLC	United States of America	9759700 14/005232	Sep 13, 2013	Issued
Empire Technology Development LLC	United States of America	8880704 13/578025	Aug 9, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1629596 10-2014-7028141	Apr 19, 2012	Issued
Empire Technology Development LLC	China	ZL201280072529.3 201280072529.3	Apr 19, 2012	Issued
Empire Technology Development LLC	United States of America	9311316 14/488453	Sep 17, 2014	Issued
Empire Technology Development LLC	Australia	2013200526 2013200526	Feb 1, 2013	Issued
Empire Technology Development LLC	United States of America	9239137 13/876473	Mar 27, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1546497 102130068	Aug 22, 2013	Issued
Empire Technology Development LLC	United States of America	8668353 13/940017	Jul 11, 2013	Issued
Empire Technology Development LLC	United States of America	9197653 13/81384	Jan 21, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1587959 10-2014-7036969	Jun 5, 2012	Issued
Empire Technology Development LLC	United States of America	9882920 14/873169	Oct 1, 2015	Issued
Empire Technology Development LLC	United States of America	14/770,756	Aug 26, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9482639 14/768532	Aug 18, 2015	Issued
Empire Technology Development LLC	United States of America	9945793 15/289714	Oct 10, 2016	Issued
Empire Technology Development LLC	United States of America	9619265 14/233848	Jan 20, 2014	Issued
Empire Technology Development LLC	China	201380077736.2	Jun 25, 2013	Published
Empire Technology Development LLC	United States of America	8803187 13/830068	Mar 14, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1557948 102131340	Aug 30, 2013	Issued
Empire Technology Development LLC	United States of America	8961682 13/813715	Feb 1, 2013	Issued
Empire Technology Development LLC	United States of America	9193874 13/700683	Nov 28, 2012	Issued
Empire Technology Development LLC	United States of America	9701863 14/919296	Oct 21, 2015	Issued
Empire Technology Development LLC	India	1011/DEINP/2015	Aug 10, 2012	Published
Empire Technology Development LLC	Taiwan R.O.C.	1577749 102142058	Nov 19, 2013	Issued
Empire Technology Development LLC	United States of America	9846345 14/771400	Aug 28, 2015	Issued
Empire Technology Development LLC	United States of America	9255907 14/363049	Jun 5, 2014	Issued
Empire Technology Development LLC	United States of America	8859637 13/877413	Apr 2, 2013	Issued
Empire Technology Development LLC	China	201480073704.X	Jan 21, 2014	Published
Empire Technology Development LLC	United States of America	8997179 13/816717	Feb 12, 2013	Issued
Empire Technology Development LLC	China	201280076055X 201280076055.X	Sep 26, 2012	Issued
Empire Technology Development LLC	United States of America	10145815 15/027170	Apr 4, 2016	Issued
Empire Technology Development LLC	China	201380080104.1	Oct 7, 2013	Published

Empire Technology Development LLC	United States of America	9314885 13/578518	Aug 10, 2012	Issued
Empire Technology Development LLC	United States of America	9856408 14/763739	Jul 27, 2015	Issued
Empire Technology Development LLC	United States of America	8868800 13/978655	Jul 8, 2013	Issued
Empire Technology Development LLC	China	ZL201380074571.3	Mar 12, 2013	Issued
Empire Technology Development LLC	United States of America	9120958 13/816988	Feb 14, 2013	Issued
Empire Technology Development LLC	China	2012800734095	May 22, 2012	Issued
Empire Technology Development LLC	United States of America	9143491 13/877377	Apr 2, 2013	Issued
Empire Technology Development LLC	United States of America	14/827,476	Aug 17, 2015	Published
Empire Technology Development LLC	China	ZL201380070781.5	Jan 17, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1802625	Jan 17, 2013	Issued
Empire Technology Development LLC	United States of America	13/879,713	Apr 16, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9396069 14/001870	Aug 27, 2013	Issued
Empire Technology Development LLC	United States of America	9195492 13/877216	Apr 1, 2013	Issued
Empire Technology Development LLC	China	ZL 201280076661.1	Oct 25, 2012	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1518534	Dec 27, 2013	Issued
Empire Technology Development LLC	United States of America	9520292 14/407072	Dec 11, 2014	Issued
Empire Technology Development LLC	China	ZL201380069631.2	Jan 6, 2013	Issued
Empire Technology Development LLC	United States of America	9768767 15/336808	Oct 28, 2016	Issued
Empire Technology Development LLC	China	201380078893.5	Aug 15, 2013	Allowed
Empire Technology Development LLC	Taiwan R.O.C.	1536260	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America	10095658 14/411917	Dec 30, 2014	Issued
Empire Technology Development LLC	United States of America	9116939 13/816134	Feb 8, 2013	Issued
Empire Technology Development LLC	United States of America	9390122 14/796259	Jul 10, 2015	Issued
Empire Technology Development LLC	United States of America	9023146 13/819745	Feb 28, 2013	Issued
Empire Technology Development LLC	United States of America	9229865 13/982620	Jul 30, 2013	Issued
Empire Technology Development LLC	United States of America	9266020 13/876160	Mar 26, 2013	Issued
Empire Technology Development LLC	United States of America	9610496 14/992042	Jan 11, 2016	Issued
Empire Technology Development LLC	United States of America	9925461 15/477229	Apr 3, 2017	Issued
Empire Technology Development LLC	United States of America	9278318 13/995339	Jun 18, 2013	Issued
Empire Technology Development LLC	United States of America	9710303 14/009750	Oct 3, 2013	Issued
Empire Technology Development LLC	United States of America	14/418,871	Jan 30, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9254147 14/112037	Oct 16, 2013	Issued
Empire Technology Development LLC	United States of America	9241780 14/112036	Oct 16, 2013	Issued
Empire Technology Development LLC	United States of America	14/769,778	Aug 21, 2015	Marked for Impairing
Empire Technology Development LLC	Taiwan R.O.C.	1624430	Apr 14, 2014	Issued
Empire Technology Development LLC	United States of America	10014475 14/785323	Oct 17, 2015	Issued

Empire Technology Development LLC	United States of America	9742617	13/701445	Nov 30, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1859115	10-2015-7001388	Jun 18, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1624319	10-2015-7003705	Jul 11, 2012	Issued
Empire Technology Development LLC	United States of America		13/980,033	Dec 3, 2013	Published
Empire Technology Development LLC	Republic of Korea	10-1639958	10-2015-7000281	Jul 10, 2012	Issued
Empire Technology Development LLC	United States of America		13/642,775	Oct 22, 2012	Published
Empire Technology Development LLC	Japan	6033417	2015-515995	Jun 11, 2012	Issued
Empire Technology Development LLC	United States of America	9525588	13/810496	Jan 16, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1621791	10-2015-7006642	Aug 14, 2012	Issued
Empire Technology Development LLC	United States of America	10154022	15/361622	Nov 28, 2016	Issued
Empire Technology Development LLC	United States of America	9051479	13/879941	Apr 17, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1687925	10-2015-7000192	Jul 3, 2012	Issued
Empire Technology Development LLC	United States of America		13/643,041	Oct 23, 2012	Published
Empire Technology Development LLC	United States of America	9282153	13/816102	Feb 8, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1648318	10-2015-7000286	Jul 19, 2012	Issued
Empire Technology Development LLC	United States of America	9954964	15/002695	Jan 21, 2016	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1611737	103126217	Jul 31, 2014	Issued
Empire Technology Development LLC	China	2013800795356	201380079535.6	Jul 31, 2013	Issued
Empire Technology Development LLC	United States of America		14/909,419	Feb 1, 2016	Published
Empire Technology Development LLC	United States of America	10017651	14/888386	Oct 30, 2015	Issued
Empire Technology Development LLC	United States of America	8954035	13/816419	Feb 11, 2013	Issued
Empire Technology Development LLC	China	ZL201280034446.5	201280034446.5	Aug 3, 2012	Issued
Empire Technology Development LLC	European Patent Office	2740229	12820278.5	Aug 3, 2012	Issued
Empire Technology Development LLC	Japan	5911037	2014-524108	Aug 3, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1589653	10-2014-7004286	Aug 3, 2012	Issued
Empire Technology Development LLC	Germany	2740229	602012051360.8	Aug 3, 2012	Issued
Empire Technology Development LLC	France	2740229	12820278.5	Aug 3, 2012	Issued
Empire Technology Development LLC	United Kingdom	2740229	12820278.5	Aug 3, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1689945	10-2014-7033567	Jun 30, 2012	Issued
Empire Technology Development LLC	United States of America	9392049	13/823104	Mar 13, 2013	Issued
Empire Technology Development LLC	China	ZL201280074125.8	201280074125.8	Jun 19, 2012	Issued
Empire Technology Development LLC	United States of America		14/901,403	Dec 28, 2015	Marked for Impairing
Empire Technology Development LLC	Republic of Korea	10-1675038	10-2015-7001329	Jun 19, 2012	Issued
Empire Technology Development LLC	United States of America	9251177	13/701197	Nov 30, 2012	Issued
Empire Technology Development LLC	China	ZL201280073925.8	201280073925.8	Jun 12, 2012	Issued
Empire Technology Development LLC	United States of America	9892197	14/995788	Jan 14, 2016	Issued

Empire Technology Development LLC	United States of America	9760926 13/810818	Jan 17, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1807456	Dec 26, 2016	Issued
Empire Technology Development LLC	United States of America	9417842 14/006071	Sep 18, 2013	Issued
Empire Technology Development LLC	United States of America	9297768 14/118006	Nov 5, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1489099 103113577	Apr 14, 2014	Issued
Empire Technology Development LLC	China	ZL201380075719.5 201380075719.5	Apr 18, 2013	Issued
Empire Technology Development LLC	United States of America	9132015 13/990309	May 29, 2013	Issued
Empire Technology Development LLC	United States of America	9597187 14/820431	Aug 6, 2015	Issued
Empire Technology Development LLC	United States of America	9283069 14/112275	Oct 17, 2013	Issued
Empire Technology Development LLC	United States of America	9465729 13/982807	Jul 31, 2013	Issued
Empire Technology Development LLC	China	ZL201380074458.5 201380074458.5	Mar 13, 2013	Issued
Empire Technology Development LLC	United States of America	9965385 15/268226	Sep 16, 2016	Issued
Empire Technology Development LLC	China	201711183784.6	Mar 13, 2013	Published
Empire Technology Development LLC	United States of America	9483736 13/988015	May 16, 2013	Issued
Empire Technology Development LLC	United States of America	13/876,163	Mar 26, 2013	Published
Empire Technology Development LLC	Republic of Korea	10-1699143 10-2014-7033596	Jun 12, 2012	Issued
Empire Technology Development LLC	Republic of Korea	8821261 13/702907	Dec 7, 2012	Issued
Empire Technology Development LLC	Republic of Korea	10-1581154 10-2014-7033455	Jun 12, 2012	Issued
Empire Technology Development LLC	United States of America	9740375 14/110119	Oct 4, 2013	Issued
Empire Technology Development LLC	United States of America	9171092 13/991382	Jun 3, 2013	Issued
Empire Technology Development LLC	United States of America	9772990 14/851245	Sep 11, 2015	Issued
Empire Technology Development LLC	United States of America	15/708,517	Sep 19, 2017	Published
Empire Technology Development LLC	United States of America	9919929 15/100616	May 31, 2016	Issued
Empire Technology Development LLC	United States of America	9068099 13/881416	Apr 25, 2013	Issued
Empire Technology Development LLC	United States of America	8785679 13/881540	Apr 25, 2013	Issued
Empire Technology Development LLC	United States of America	9327454 13/878538	Apr 9, 2013	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1593731 102142059	Nov 19, 2013	Issued
Empire Technology Development LLC	United States of America	9567255 14/764302	Jul 29, 2015	Issued
Empire Technology Development LLC	United States of America	9771468 15/394505	Dec 29, 2016	Issued
Empire Technology Development LLC	United States of America	14/910,874	Feb 8, 2016	Published
Empire Technology Development LLC	United States of America	9283096 14/129864	Dec 27, 2013	Issued
Empire Technology Development LLC	United States of America	9210051 14/004902	Sep 12, 2013	Issued
Empire Technology Development LLC	United States of America	ZL201280075765.0 201280075765.0	Sep 12, 2012	Issued
Empire Technology Development LLC	China	9713480 14/356391	May 5, 2014	Issued
Empire Technology Development LLC	United States of America	9852000 14/915217	Feb 26, 2016	Issued
Empire Technology Development LLC	United States of America	9101840 13/878126	Apr 5, 2013	Issued



Empire Technology Development LLC	United States of America	9364763	14/739443	Jun 15, 2015	Issued
Empire Technology Development LLC	Taiwan R.O.C.	1556980	103102966	Jan 27, 2014	Issued
Empire Technology Development LLC	United States of America	9707583	14/766971	Aug 10, 2015	Issued
Empire Technology Development LLC	United States of America	9612961	14/363792	Jun 7, 2014	Issued
Empire Technology Development LLC	China		201380079176.4	Aug 29, 2013	Published
Empire Technology Development LLC	United States of America	15/474,577		Mar 30, 2017	Published
Empire Technology Development LLC	United States of America	13/885,996		May 16, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9043923	13/885160	May 13, 2013	Issued
Empire Technology Development LLC	United States of America	9436814	14/426157	Mar 4, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1731934	10-2015-7022931	Jan 22, 2013	Issued
Empire Technology Development LLC	United States of America	9361446	13/994882	Jun 17, 2013	Issued
Empire Technology Development LLC	United States of America	9760244	14/009095	Sep 30, 2013	Issued
Empire Technology Development LLC	United States of America	9498315	14/031056	Sep 19, 2013	Issued
Empire Technology Development LLC	United States of America	14/769,818		Aug 23, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9602576	14/350038	Apr 4, 2014	Issued
Empire Technology Development LLC	United States of America	15/463,862		Mar 20, 2017	Published
Empire Technology Development LLC	United States of America	14/406,147		Dec 5, 2014	Marked for Impairing
Empire Technology Development LLC	China	201380078867.2		Aug 15, 2013	Allowed
Empire Technology Development LLC	Taiwan R.O.C.	1509448	103127247	Aug 8, 2014	Issued
Empire Technology Development LLC	United States of America	9411922	14/414452	Jan 13, 2015	Issued
Empire Technology Development LLC	United States of America	9304795	13/977670	Jun 28, 2013	Issued
Empire Technology Development LLC	China		201380070466.2	Jan 15, 2013	Published
Empire Technology Development LLC	United States of America	9237133	13/876766	Mar 28, 2013	Issued
Empire Technology Development LLC	United States of America	9304790	13/978877	Jul 9, 2013	Issued
Empire Technology Development LLC	China	ZL 2013800719687	201380071968.7	Jan 31, 2013	Issued
Empire Technology Development LLC	United States of America	9021509	14/114524	Oct 28, 2013	Issued
Empire Technology Development LLC	United States of America	9648123	13/988417	May 20, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1717455	10-2015-7014292	Dec 17, 2012	Issued
Empire Technology Development LLC	China	201380079281.8		Sep 5, 2013	Issued
Empire Technology Development LLC	United States of America	14/916,743		Mar 4, 2016	Published
Empire Technology Development LLC	European Patent Office	13892965.8		Sep 5, 2013	Published
Empire Technology Development LLC	China	201380080723.0		Sep 12, 2013	Allowed
Empire Technology Development LLC	Japan	6247398	2016-541943	Sep 12, 2013	Issued
Empire Technology Development LLC	United States of America	14/400,557		Nov 12, 2014	Published
Empire Technology Development LLC	United States of America	9298502	14/110132	Oct 4, 2013	Issued
Empire Technology Development LLC	United States of America	9493670	14/785477	Oct 19, 2015	Issued

Empire Technology Development LLC	United States of America	10023758	14/906540	Jan 20, 2016	Issued
Empire Technology Development LLC	United States of America	9154191	13/980041	Jul 16, 2013	Issued
Empire Technology Development LLC	United States of America	9432088	14/840612	Aug 31, 2015	Issued
Empire Technology Development LLC	United States of America	9564202	14/371180	Jul 9, 2014	Issued
Empire Technology Development LLC	China	2013800793007	201380079300.7	Sep 1, 2013	Issued
Empire Technology Development LLC	China		201811134120	Sep 1, 2013	Pending
Empire Technology Development LLC	United States of America	15/401,114		Jan 9, 2017	Published
Empire Technology Development LLC	United States of America	9405666	14/342333	Feb 28, 2014	Issued
Empire Technology Development LLC	United States of America	14/769,806		Aug 22, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	14/234,380		Jul 12, 2014	Published
Empire Technology Development LLC	United States of America	9699058	14/238457	Feb 11, 2014	Issued
Empire Technology Development LLC	United States of America	9867168	14/783309	Oct 8, 2015	Issued
Empire Technology Development LLC	European Patent Office	13883726.5		Apr 30, 2013	Published
Empire Technology Development LLC	United States of America	15/863,003		Jan 5, 2018	Published
Empire Technology Development LLC	United States of America	9603012	14/390383	Oct 2, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1820323	10-2016-7006807	Aug 19, 2013	Issued
Empire Technology Development LLC	United States of America	14/763,161		Jul 23, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	14/894,999		Dec 1, 2015	Marked for Impairing
Empire Technology Development LLC	China	201380077232.0		Jun 6, 2013	Allowed
Empire Technology Development LLC	United States of America	9356956	14/356150	May 3, 2014	Issued
Empire Technology Development LLC	United States of America	14/351,508		Apr 11, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	9747185	13/850671	Mar 26, 2013	Issued
Empire Technology Development LLC	Republic of Korea	10-1478567	10-2013-0054528	May 14, 2013	Issued
Empire Technology Development LLC	Japan	5840716	2014-062866	Mar 26, 2014	Issued
Empire Technology Development LLC	United States of America	9585618	14/237084	Feb 4, 2014	Issued
Empire Technology Development LLC	China	ZL201380078719.0	201380078719.0	Aug 5, 2013	Issued
Empire Technology Development LLC	United States of America	14/910,640		Feb 5, 2016	Published
Empire Technology Development LLC	United States of America	9859925	14/785582	Oct 19, 2015	Issued
Empire Technology Development LLC	United States of America	9515902	14/114732	Oct 29, 2013	Issued
Empire Technology Development LLC	China	201380073223.4		Apr 17, 2013	Published
Empire Technology Development LLC	United States of America	9597091	14/118626	Nov 19, 2013	Issued
Empire Technology Development LLC	United States of America	9311153	14/124569	Dec 6, 2013	Issued
Empire Technology Development LLC	China	2013800765806	201380076580.6	May 15, 2013	Issued
Empire Technology Development LLC	United States of America	9288206	14/358146	May 14, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1812397	10-2015-7034704	Jun 4, 2013	Issued
Empire Technology Development LLC	United States of America	14/344,795		Mar 13, 2014	Marked for Impairing



Empire Technology Development LLC	United States of America	9354855	14/351829	Apr 14, 2014	Issued
Empire Technology Development LLC	United States of America	9792062	14/348143	Mar 28, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1753866	10-2015-7035111	May 10, 2013	Issued
Empire Technology Development LLC	China	201380076472.9		May 10, 2013	Published
Empire Technology Development LLC	United States of America	9988491	15/031687	Apr 22, 2016	Issued
Empire Technology Development LLC	European Patent Office	13895980.4		Oct 22, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	8954993	14/009101	Sep 30, 2013	Issued
Empire Technology Development LLC	United States of America	9479472	14/575809	Dec 18, 2014	Issued
Empire Technology Development LLC	United States of America	9367370	14/468238	Aug 25, 2014	Issued
Empire Technology Development LLC	United States of America	9565075	14/373026	Jul 17, 2014	Issued
Empire Technology Development LLC	United States of America	15/402,389		Jan 10, 2017	Published
Empire Technology Development LLC	China	ZL201380073510.5	201380073510.5	Feb 21, 2013	Issued
Empire Technology Development LLC	United States of America	14/769,753		Aug 21, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	14/892,525		Nov 19, 2015	Published
Empire Technology Development LLC	United States of America	9274822	14/238470	Feb 11, 2014	Issued
Empire Technology Development LLC	United States of America	10067792	15/104125	Jun 13, 2016	Issued
Empire Technology Development LLC	United States of America	9079108	14/119171	Nov 20, 2013	Issued
Empire Technology Development LLC	United States of America	9358466	14/728645	Jun 2, 2015	Issued
Empire Technology Development LLC	China	ZL201380077113.5	201380077113.5	May 31, 2013	Issued
Empire Technology Development LLC	United States of America	9990293	14/457128	Aug 12, 2014	Issued
Empire Technology Development LLC	United States of America	9648134	14/003770	Sep 6, 2013	Issued
Empire Technology Development LLC	United States of America	9982094	15/031701	Apr 22, 2016	Issued
Empire Technology Development LLC	China	201380080411X	201380080411.X	Oct 22, 2013	Issued
Empire Technology Development LLC	European Patent Office	13896041.4		Oct 22, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	15/300,272		Sep 28, 2016	Allowed
Empire Technology Development LLC	Republic of Korea	10-2016-7029564		Mar 29, 2014	Allowed
Empire Technology Development LLC	China	201480077643.4		Mar 29, 2014	Published
Empire Technology Development LLC	United States of America	9836625	14/364076	Jun 10, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-2016-7018875		Dec 19, 2013	Allowed
Empire Technology Development LLC	United States of America	10037653	14/376816	Aug 5, 2014	Issued
Empire Technology Development LLC	United States of America	9137011	14/127969	Dec 19, 2013	Issued
Empire Technology Development LLC	United States of America	9621521	14/796238	Jul 10, 2015	Issued
Empire Technology Development LLC	European Patent Office	13886984.7		Jun 13, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	14/898,369		Dec 14, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9489774	14/235958	Jan 29, 2014	Issued
Empire Technology Development LLC	United States of America	9680864	14/238542	Feb 12, 2014	Issued

Empire Technology Development LLC	United States of America	9823539	14/901676	Dec 28, 2015	Issued
Empire Technology Development LLC	United States of America		14/783,472	Oct 9, 2015	Published
Empire Technology Development LLC	China		201380076779.9	May 30, 2013	Published
Empire Technology Development LLC	United States of America	10042621	14/379630	Aug 19, 2014	Issued
Empire Technology Development LLC	China		201380078341.4	Aug 8, 2013	Published
Empire Technology Development LLC	United States of America	9306963	14/352655	Apr 17, 2014	Issued
Empire Technology Development LLC	United States of America	9853989	15/017982	Feb 8, 2016	Issued
Empire Technology Development LLC	United States of America		14/350,771	Aug 7, 2014	Allowed
Empire Technology Development LLC	United States of America	9389663	14/386300	Sep 18, 2014	Issued
Empire Technology Development LLC	China		201480073940.1	Jan 22, 2014	Published
Empire Technology Development LLC	United States of America	9766681	14/306406	Jun 17, 2014	Issued
Empire Technology Development LLC	United States of America	9760691	14/647079	May 22, 2015	Issued
Empire Technology Development LLC	United States of America	9549036	14/376133	Jul 31, 2014	Issued
Empire Technology Development LLC	United States of America	9374707	14/372008	Jul 11, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1824895	10-2016-7013897	Oct 25, 2013	Issued
Empire Technology Development LLC	United States of America		15/035,472	May 9, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9424060	14/239970	Feb 20, 2014	Issued
Empire Technology Development LLC	United States of America	9896633	14/414382	Jan 12, 2015	Issued
Empire Technology Development LLC	China	ZL201380078393.1	201380078393.1	Jul 23, 2013	Issued
Empire Technology Development LLC	United States of America		15/024,888	Mar 25, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America		15/107,607	Jun 23, 2016	Published
Empire Technology Development LLC	Taiwan R.O.C.	1535649	103115944	May 5, 2014	Issued
Empire Technology Development LLC	United States of America	9765178	14/899123	Dec 17, 2015	Issued
Empire Technology Development LLC	United States of America		15/123,985	Sep 6, 2016	Published
Empire Technology Development LLC	United States of America		14/907,285	Jan 24, 2016	Published
Empire Technology Development LLC	China		201380078825.9	Jul 23, 2013	Published
Empire Technology Development LLC	United States of America	9432720	14/380698	Aug 22, 2014	Issued
Empire Technology Development LLC	United States of America	9854294	15/197767	Jun 30, 2016	Issued
Empire Technology Development LLC	United States of America	9710291	14/241052	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America		14/379,492	Aug 18, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America		14/594,253	Jan 12, 2015	Published
Empire Technology Development LLC	United States of America	10131610	15/032045	Apr 25, 2016	Issued
Empire Technology Development LLC	United States of America	9965310	14/906752	Jan 21, 2016	Issued
Empire Technology Development LLC	China		201480076447.5	Mar 10, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	9982093	15/125571	Sep 12, 2016	Issued
Empire Technology Development LLC	United States of America	9501137	14/373897	Jul 22, 2014	Issued

Empire Technology Development LLC	China	201380080373.8	Oct 22, 2013	Allowed
Empire Technology Development LLC	United States of America	9531813 14/380372	Aug 21, 2014	Issued
Empire Technology Development LLC	China	201380081397.5	Dec 4, 2013	Allowed
Empire Technology Development LLC	United States of America	9438624 14/384677	Sep 11, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-2016-7011581	Dec 4, 2013	Issued
Empire Technology Development LLC	United States of America	15/867,211	Jan 10, 2018	Published
Empire Technology Development LLC	China	ZL201380081399.4	Dec 5, 2013	Issued
Empire Technology Development LLC	United States of America	9195490 14/347894	Mar 27, 2014	Issued
Empire Technology Development LLC	United States of America	9792135 14/887902	Oct 20, 2015	Issued
Empire Technology Development LLC	United States of America	15/633,235	Jun 26, 2017	Marked for Impairing
Empire Technology Development LLC	United States of America	9692833 14/359247	May 19, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1781311	Jul 26, 2013	Issued
Empire Technology Development LLC	European Patent Office	13889955.4	Jul 26, 2013	Marked for Impairing
Empire Technology Development LLC	United States of America	9930114 14/526434	Oct 28, 2014	Issued
Empire Technology Development LLC	United States of America	9760390 14/351070	Apr 10, 2014	Issued
Empire Technology Development LLC	United States of America	9805813 14/649505	Jun 3, 2015	Issued
Empire Technology Development LLC	China	201380079234.3	Aug 30, 2013	Published
Empire Technology Development LLC	United States of America	15/128,895	Sep 23, 2016	Published
Empire Technology Development LLC	China	201480077865.6	Apr 4, 2014	Published
Empire Technology Development LLC	European Patent Office	14888153.5	Apr 4, 2014	Published
Empire Technology Development LLC	United States of America	9632832 14/758404	Jun 29, 2015	Issued
Empire Technology Development LLC	European Patent Office	14884199.2	Feb 27, 2014	Published
Empire Technology Development LLC	United States of America	15/495,126	Apr 24, 2017	Published
Empire Technology Development LLC	United States of America	9203798 14/118992	Nov 20, 2013	Issued
Empire Technology Development LLC	United States of America	15/110,699	Jul 8, 2016	Allowed
Empire Technology Development LLC	United States of America	9678550 14/337748	Jul 22, 2014	Issued
Empire Technology Development LLC	China	2015104344135	Jul 22, 2015	Issued
Empire Technology Development LLC	United States of America	9419993 14/380371	Aug 21, 2014	Issued
Empire Technology Development LLC	United States of America	9466731 14/457960	Aug 12, 2014	Issued
Empire Technology Development LLC	United States of America	9997640 15/252250	Aug 31, 2016	Issued
Empire Technology Development LLC	China	201510388378.8	Jul 3, 2015	Published
Empire Technology Development LLC	United States of America	9508685 14/445991	Jul 29, 2014	Issued
Empire Technology Development LLC	United States of America	9812428 15/299483	Oct 21, 2016	Issued
Empire Technology Development LLC	United States of America	9484328 14/450203	Aug 1, 2014	Issued
Empire Technology Development LLC	United States of America	9124337 14/128201	Dec 20, 2013	Issued
Empire Technology Development LLC	United States of America	9350439 14/812664	Jul 29, 2015	Issued

Empire Technology Development LLC	China	201380079175.X	Aug 30, 2013	Published
Empire Technology Development LLC	United States of America	10140639 14/373625	Jul 21, 2014	Issued
Empire Technology Development LLC	United States of America	16/198,482	Nov 21, 2018	Pending
Empire Technology Development LLC	United States of America	9994677 15/125576	Sep 12, 2016	Issued
Empire Technology Development LLC	China	201480076348.7	Mar 11, 2014	Published
Empire Technology Development LLC	United States of America	14/370,436	Jul 2, 2014	Allowed
Empire Technology Development LLC	United States of America	9619168 14/376125	Jul 31, 2014	Issued
Empire Technology Development LLC	United States of America	9237165 14/371730	Jul 10, 2014	Issued
Empire Technology Development LLC	China	201380080805.5	Nov 6, 2013	Published
Empire Technology Development LLC	United States of America	15/495,517	Apr 24, 2017	Allowed
Empire Technology Development LLC	United States of America	9630110 14/353238	Apr 21, 2014	Issued
Empire Technology Development LLC	China	201380079766.7	Sep 23, 2013	Published
Empire Technology Development LLC	United States of America	9761051 14/362583	Jun 3, 2014	Issued
Empire Technology Development LLC	United States of America	15/120,446	Aug 19, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9671973 14/651091	Jun 10, 2015	Issued
Empire Technology Development LLC	United States of America	15/612,452	Jun 2, 2017	Published
Empire Technology Development LLC	United States of America	15/483,740	Apr 10, 2017	Allowed
Empire Technology Development LLC	United States of America	9619857 14/360288	May 22, 2014	Issued
Empire Technology Development LLC	United States of America	9237274 14/364017	Jun 9, 2014	Issued
Empire Technology Development LLC	China	201480074706.0	Feb 7, 2014	Allowed
Empire Technology Development LLC	United States of America	10059591 15/117332	Aug 8, 2016	Issued
Empire Technology Development LLC	United States of America	9811526 14/372407	Jul 15, 2014	Issued
Empire Technology Development LLC	United States of America	9391771 14/390368	Oct 2, 2014	Issued
Empire Technology Development LLC	United States of America	9784692 14/372439	Jul 15, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1864135 10-2016-7023230	Feb 7, 2014	Issued
Empire Technology Development LLC	United States of America	15/306,004	Oct 21, 2016	Published
Empire Technology Development LLC	United States of America	9946647 15/306021	Oct 21, 2016	Issued
Empire Technology Development LLC	United States of America	9406750 14/548264	Nov 19, 2014	Issued
Empire Technology Development LLC	United States of America	9524960 14/761599	Jul 16, 2015	Issued
Empire Technology Development LLC	China	201480078416.3	Apr 1, 2014	Published
Empire Technology Development LLC	United States of America	9813406 14/370637	Jul 3, 2014	Issued
Empire Technology Development LLC	United States of America	9646178 14/515425	Oct 15, 2014	Issued
Empire Technology Development LLC	China	201510666276.8	Oct 15, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-2015-0143539	Oct 14, 2015	Issued
Empire Technology Development LLC	United States of America	15/494,109	Apr 21, 2017	Published
Empire Technology Development LLC	United States of America	9684603 14/603277	Jan 22, 2015	Issued

Empire Technology Development LLC	United States of America	9396564	14/413414	Jan 7, 2015	Issued
Empire Technology Development LLC	United States of America	9312382	14/338217	Jul 22, 2014	Issued
Empire Technology Development LLC	United States of America	15/112,131		Jul 15, 2016	Allowed
Empire Technology Development LLC	United States of America	9589654	14/647075	Aug 23, 2016	Published
Empire Technology Development LLC	United States of America	9934862	15/424065	May 22, 2015	Issued
Empire Technology Development LLC	United States of America	9607409	14/373829	Feb 3, 2017	Issued
Empire Technology Development LLC	United States of America	10013809	15/470073	Jul 22, 2014	Issued
Empire Technology Development LLC	United States of America	9773293	14/375296	Mar 27, 2017	Issued
Empire Technology Development LLC	United States of America	10152410	14/442093	Jul 29, 2014	Issued
Empire Technology Development LLC	United States of America	14/758,812		May 11, 2015	Issued
Empire Technology Development LLC	United States of America	15/125,523		Jul 1, 2015	Published
Empire Technology Development LLC	United States of America	9202558	14/457479	Sep 12, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	201610045992.9		Aug 12, 2014	Issued
Empire Technology Development LLC	China	9418231	14/295286	Jan 22, 2016	Published
Empire Technology Development LLC	China	ZL2015103002592	201510300259.2	Jun 3, 2014	Issued
Empire Technology Development LLC	United States of America	9772935	14/488125	Jun 3, 2015	Issued
Empire Technology Development LLC	United States of America	9983991	15/712475	Sep 16, 2014	Issued
Empire Technology Development LLC	China	201580050129.6		Sep 22, 2017	Issued
Empire Technology Development LLC	United States of America	14/291,124		Aug 11, 2015	Published
Empire Technology Development LLC	China	201610157246.9		May 30, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America	10109852	14/666058	Mar 18, 2016	Allowed
Empire Technology Development LLC	United States of America	9575250	14/324074	Mar 23, 2015	Issued
Empire Technology Development LLC	China	201510922695.3		Jul 3, 2014	Issued
Empire Technology Development LLC	European Patent Office	15202952.6		Dec 14, 2015	Published
Empire Technology Development LLC	United States of America	9281065	14/456965	Dec 29, 2015	Published
Empire Technology Development LLC	United States of America	10040777	14/316527	Aug 11, 2014	Issued
Empire Technology Development LLC	United States of America	9858179	14/430891	Jun 26, 2014	Issued
Empire Technology Development LLC	United States of America	9779463	14/380908	Mar 24, 2015	Issued
Empire Technology Development LLC	China	201480070775.4		Aug 25, 2014	Issued
Empire Technology Development LLC	United States of America	9501350	14/492186	Oct 23, 2013	Published
Empire Technology Development LLC	United States of America	9876562	14/760951	Sep 22, 2014	Issued
Empire Technology Development LLC	United States of America	9195762	14/383720	Jul 14, 2015	Issued
Empire Technology Development LLC	United States of America	9411894	14/873401	Sep 8, 2014	Issued
Empire Technology Development LLC	Republic of Korea	10-1890502	10-2016-7027140	Oct 2, 2015	Issued
Empire Technology Development LLC	United States of America	15/107,927		Apr 8, 2014	Issued
Empire Technology Development LLC	United States of America			Jun 24, 2016	Allowed

Empire Technology Development LLC	European Patent Office	3131735	14889450.4	Apr 15, 2014	Issued
Empire Technology Development LLC	France	3131735	14889450.4	Apr 15, 2014	Issued
Empire Technology Development LLC	Germany	3131735	14889450.4	Apr 15, 2014	Issued
Empire Technology Development LLC	United Kingdom	3131735	14889450.4	Apr 15, 2014	Issued
Empire Technology Development LLC	China	2014800760421	201480076042.1	Feb 24, 2014	Issued
Empire Technology Development LLC	United States of America		15/109,833	Jul 6, 2016	Published
Empire Technology Development LLC	United States of America	9769395	14/421101	Feb 11, 2015	Issued
Empire Technology Development LLC	United States of America		15/123,144	Sep 1, 2016	Marked for Impairing
Empire Technology Development LLC	United States of America	9851796	14/482958	Sep 10, 2014	Issued
Empire Technology Development LLC	China	ZL201510571928X	201510571928.X	Sep 9, 2015	Issued
Empire Technology Development LLC	United States of America	9586371	14/475360	Sep 2, 2014	Issued
Empire Technology Development LLC	United States of America	10144152	15/508416	Mar 2, 2017	Issued
Empire Technology Development LLC	United States of America	9575534	14/391640	Nov 7, 2016	Published
Empire Technology Development LLC	United States of America		15/436,078	Oct 9, 2014	Issued
Empire Technology Development LLC	United States of America	9786297	14/420858	Feb 17, 2017	Published
Empire Technology Development LLC	United States of America		15/729,126	Feb 10, 2015	Issued
Empire Technology Development LLC	United States of America		14/329,795	Oct 10, 2017	Published
Empire Technology Development LLC	United States of America	9406152	14/334465	Jul 11, 2014	Marked for Impairing
Empire Technology Development LLC	United States of America		15/106,851	Jul 17, 2014	Issued
Empire Technology Development LLC	United States of America	10005235	14/479817	Jun 21, 2016	Published
Empire Technology Development LLC	United States of America		14/649,894	Sep 8, 2014	Issued
Empire Technology Development LLC	United States of America	9783647	14/282055	Jun 4, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9635529	14/297450	May 20, 2014	Issued
Empire Technology Development LLC	United States of America	9563620	14/293363	Jun 5, 2014	Issued
Empire Technology Development LLC	United States of America	10084343	14/304653	Jun 2, 2014	Issued
Empire Technology Development LLC	China	201510328894.1	201510328894.1	Jun 13, 2014	Issued
Empire Technology Development LLC	China	201510328894.1	201510328894.1	Jun 15, 2015	Issued
Empire Technology Development LLC	China	2018109486013	2018109486013	Jun 15, 2015	Pending
Empire Technology Development LLC	United States of America		16/111,577	Aug 24, 2018	Pending
Empire Technology Development LLC	United States of America	9858111	14/308262	Jun 18, 2014	Issued
Empire Technology Development LLC	United States of America		14/413,418	Jan 8, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9747035	14/573259	Dec 17, 2014	Issued
Empire Technology Development LLC	United States of America	9729201	14/405084	Dec 2, 2014	Issued
Empire Technology Development LLC	United States of America	9619867	14/413223	Jan 6, 2015	Issued
Empire Technology Development LLC	United States of America	9760912	14/311807	Jun 23, 2014	Issued
Empire Technology Development LLC	United States of America		15/700,907	Sep 11, 2017	Published



Empire Technology Development LLC	United States of America	9824750 14/630644	Feb 24, 2015	Issued
Empire Technology Development LLC	United States of America	9369477 14/290883	May 29, 2014	Issued
Empire Technology Development LLC	United States of America	10069324 14/480007	Sep 8, 2014	Issued
Empire Technology Development LLC	China	ZL201510680693.8 201510680693.8	Sep 8, 2015	Issued
Empire Technology Development LLC	United States of America	16/101,285	Aug 10, 2018	Published
Empire Technology Development LLC	United States of America	9944800 14/523458	Oct 24, 2014	Issued
Empire Technology Development LLC	China	2015106773065 201510677306.5	Oct 19, 2015	Issued
Empire Technology Development LLC	European Patent Office	3015513 15190759.9	Oct 21, 2015	Issued
Empire Technology Development LLC	France	3015513 15190759.9	Oct 21, 2015	Issued
Empire Technology Development LLC	United Kingdom	3015513 15190759.9	Oct 21, 2015	Issued
Empire Technology Development LLC	Germany	3015513 602015002543.1	Oct 21, 2015	Issued
Empire Technology Development LLC	United States of America	9916255 14/567278	Dec 11, 2014	Issued
Empire Technology Development LLC	United States of America	9757880 14/596078	Jan 13, 2015	Issued
Empire Technology Development LLC	United States of America	14/496,092	Sep 25, 2014	Marked for Impairing
Empire Technology Development LLC	China	ZL201510683467.5 201510683467.5	Sep 8, 2015	Issued
Empire Technology Development LLC	United States of America	14/479,909	Sep 8, 2014	Published
Empire Technology Development LLC	United States of America	9231916 14/455312	Aug 8, 2014	Issued
Empire Technology Development LLC	United States of America	9755961 14/934774	Nov 6, 2015	Issued
Empire Technology Development LLC	United States of America	14/741,328	Jun 16, 2015	Published
Empire Technology Development LLC	United States of America	9671850 14/325280	Jul 7, 2014	Issued
Empire Technology Development LLC	United States of America	9961104 14/558447	Dec 2, 2014	Issued
Empire Technology Development LLC	China	201510863278.6	Dec 1, 2015	Published
Empire Technology Development LLC	United States of America	9513990 14/494319	Sep 23, 2014	Issued
Empire Technology Development LLC	United States of America	9489739 14/458577	Aug 13, 2014	Issued
Empire Technology Development LLC	China	201510483043.4 201510483043.4	Aug 7, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-1850586 10-2015-0113317	Aug 11, 2015	Issued
Empire Technology Development LLC	Republic of Korea	10-2018-0041622	Aug 11, 2015	Pending
Empire Technology Development LLC	China	2018109515478	Aug 7, 2015	Pending
Empire Technology Development LLC	United States of America	15/286,222	Oct 5, 2016	Published
Empire Technology Development LLC	United States of America	9940458 14/454326	Aug 7, 2014	Issued
Empire Technology Development LLC	United States of America	9859034 14/665472	Mar 23, 2015	Issued
Empire Technology Development LLC	United States of America	9552228 14/479945	Sep 8, 2014	Issued
Empire Technology Development LLC	United States of America	9965309 14/665726	Mar 23, 2015	Issued
Empire Technology Development LLC	China	201610169458.9	Mar 23, 2016	Published
Empire Technology Development LLC	United States of America	14/761,935	Jul 17, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	14/614,763	Feb 5, 2015	Allowed

Empire Technology Development LLC	United States of America	14/438,223	Apr 23, 2015	Marked for Impairing
Empire Technology Development LLC	United States of America	9379841 14/431034	Mar 25, 2015	Issued
Empire Technology Development LLC	United States of America	14/437,831	Apr 22, 2015	Published
Empire Technology Development LLC	China	201480083563.X	Nov 21, 2014	Published
Empire Technology Development LLC	United States of America	14/651,191	Jun 10, 2015	Published
Empire Technology Development LLC	United States of America	14/858,979	Sep 18, 2015	Allowed
Empire Technology Development LLC	United States of America	14/858,970	Sep 18, 2015	Published
Empire Technology Development LLC	United States of America	14/859,096	Sep 18, 2015	Published
Empire Technology Development LLC	United States of America	14/859,108	Sep 18, 2015	Published
Empire Technology Development LLC	United States of America	14/858,947	Sep 18, 2015	Published
Empire Technology Development LLC	United States of America	14/761,253	Jul 15, 2015	Published
Empire Technology Development LLC	United States of America	14/787,322	Oct 27, 2015	Published
Empire Technology Development LLC	United States of America	10116970 15/581758	Apr 28, 2017	Issued
Empire Technology Development LLC	Japan	5233006 2006-326659	Dec 4, 2006	Issued
Empire Technology Development LLC	United States of America	8377708 12/665704	Dec 18, 2009	Issued
Empire Technology Development LLC	United States of America	9248439 14/412000	Dec 30, 2014	Issued
Empire Technology Development LLC	United States of America	14/410,524	Dec 22, 2014	Published
Empire Technology Development LLC	United States of America	9817002 14/403124	Mar 13, 2015	Issued
Empire Technology Development LLC	China	ZL201280073378.3 201280073378.3	Aug 6, 2012	Issued



SCHEDULE II  
PATENT LICENSES

Attached.

SCHEDULE II TO PATENT SECURITY AGREEMENT

**PATENT**  
**REEL: 048373 FRAME: 0404**

COBB\_029262

Licensee	Grantor/Licensee	Country	Patent	Application Number	Application Filing Date	Status
Akita University	Empire Technology Development LLC	Japan	4904-497	2006-34-7521	Dec 25, 2006	Issued
Akita University	Empire Technology Development LLC	United States of America	8039640	12/251114	Jun 24, 2009	Issued
Anna university and XBC Research	Empire Technology Development LLC	United States of America	8307266	12/487313	Jun 18, 2009	Issued
Anna university and XBC Research	Empire Technology Development LLC	United States of America	8527852	13/652269	Oct 15, 2012	Issued
Anna university and XBC Research	Empire Technology Development LLC	India	2151/CHE/2008	2151/CHE/2008	Sep 2, 2008	Published
Anna university and XBC Research	Empire Technology Development LLC	United States of America	8665697	12/645709	Dec 23, 2009	Issued
Anna university and XBC Research	Empire Technology Development LLC	China	7920599	12/726860	Mar 18, 2010	Issued
Anna university and XBC Research	Empire Technology Development LLC	China	21201080065905.7	201080065905.7	Sep 14, 2010	Issued
Anna university and XBC Research	Empire Technology Development LLC	Japan	35378609	2012-551695	Sep 14, 2010	Issued
Anna university and XBC Research	Empire Technology Development LLC	Republic of Korea	10-1412989	10-2012-7023018	Sep 14, 2010	Issued
Avind Vijay Keerthi	Empire Technology Development LLC	India	8526525	12/255572	Oct 21, 2008	Issued
Avind Vijay Keerthi	Empire Technology Development LLC	India	2130/CHE/2008	2130/CHE/2008	Sep 1, 2008	Published
Avind Vijay Keerthi	Empire Technology Development LLC	United States of America	8224261	12/620110	Nov 17, 2009	Issued
Bayview Mahavir Medical Research Center	Empire Technology Development LLC	China	21201080034799.6	201080034799.6	Jul 1, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	8639639	12/624374	Nov 23, 2009	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9111272	12/751323	Mar 25, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	8682879	12/762224	Apr 16, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9186075	13/060316	Feb 23, 2011	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9146609	12/874411	Sep 2, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9444606	14/832916	Aug 21, 2015	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9830444	15/224535	Jul 30, 2016	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	China	201080065379.9	201080065379.9	Nov 29, 2010	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	European Patent Office	1084854.8	1084854.8	Nov 29, 2010	Published
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	201810472071.X	201810472071.X	Jul 10, 2015	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	China	14/796.888	14/796.888	Nov 29, 2010	Published
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-146271	10-2012-7024223	Dec 15, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Japan	5512831	2012-554891	Dec 15, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	China	21201080066830.4	201080066830.4	Aug 6, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-138982	10-2012-7028669	Aug 6, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Japan	5632073	2013-513094	Aug 6, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	China	21201080050686.5	201080050686.5	Dec 27, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Japan	5562437	2012-545865	Dec 27, 2010	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9618531	14/737944	Aug 19, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	8846075	13/673916	Nov 9, 2012	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9086955	13/791823	Mar 8, 2013	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9916197	14/728749	Jun 2, 2015	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9946475	14/433449	May 15, 2015	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-1710025	10-2015-7022938	Dec 18, 2013	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-1889451	14/899.829	Nov 21, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	6276857	10-2016-7015353	Nov 21, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Japan	14/451.859	2016-532028	Aug 5, 2014	Published
Bizmodeline Co., Ltd.	Empire Technology Development LLC	European Patent Office	14664007.1	14664007.1	Nov 21, 2014	Published
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9953271	14/651870	Aug 5, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-186829	10-2016-7015481	Nov 21, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Japan	6212217	2016-532125	Nov 22, 2013	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	European Patent Office	14665709.3	14665709.3	Nov 21, 2014	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9858334	14/451899	Aug 5, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-1868830	10-2016-7015549	Nov 21, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Japan	6212216	2016-532121	Nov 22, 2013	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	European Patent Office	9059557	14/65086.0	Dec 28, 2017	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	15/865.819	2016-532028	Dec 28, 2017	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9263854	14/726406	Sep 30, 2015	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9219486	14/792699	May 29, 2015	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	9473115	14/944925	Sep 5, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-1693945	10-2016-7015348	Nov 18, 2015	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Germany	3072237	14662958.7	Oct 24, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Germany	3072237	602014033168.8	Oct 24, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United Kingdom	3072237	14662958.7	Oct 24, 2014	Issued
Bizmodeline Co., Ltd.	Empire Technology Development LLC	European Patent Office	18182228.9	201480063075.2	Oct 24, 2014	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	China	201580014774.2	201580014774.2	Jan 17, 2014	Published
Bizmodeline Co., Ltd.	Empire Technology Development LLC	China	15/112.156	201580014774.2	Jan 17, 2014	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	United States of America	10-2016-7021526	10-2016-7021526	Jan 17, 2016	Marked for Infringing
Bizmodeline Co., Ltd.	Empire Technology Development LLC	Republic of Korea	10-2016-7026705	10-2016-7026705	Feb 12, 2015	Allowed

California Institute of Technology (Caltech)	Empire Technology Development LLC	United States of America	14/451,935	Aug 5, 2014	Marked for Impairing	
California Institute of Technology (Caltech)	Empire Technology Development LLC	European Patent Office	15/611,773	Feb 12, 2015	Published	
California Institute of Technology (Caltech)	Empire Technology Development LLC	United States of America	14/793,328	Jul 7, 2015	Published	
California Institute of Technology (Caltech)	Empire Technology Development LLC	Republic of Korea	10-2016-0085743	Jul 6, 2016	Published	
California Institute of Technology (Caltech)	Empire Technology Development LLC	China	201610534833.5	Jul 7, 2016	Published	
Center for DNA Fingerprinting & Diagnostics	Empire Technology Development LLC	European Patent Office	16172166.3	May 31, 2016	Published	
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8603739	12/051,115	Aug 31, 2009	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8513824	12/725,523	Mar 16, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	Japan	5581405	2012-557359	Dec 15, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201080065514.5	201080065514.5	Dec 15, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8405267	12/755,553	Apr 7, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8703313	12/762,900	Apr 19, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	Japan	5552192	2013-504069	Dec 15, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	Z1201080066103.8	201080066103.8	Dec 15, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9515307	14/171,436	Feb 3, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9010128	12/813,757	Jun 11, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8375727	12/813,793	Jun 11, 2010	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8935561	13/403,932	Feb 23, 2012	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8737225	13/398,975	Feb 17, 2012	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9258729	14/284,311	May 21, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9727363	14/438,783	Apr 27, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	201480077888.7	201480077888.7	Apr 30, 2014	Published
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9785769	14/438,317	Mar 18, 2014	Published
Chun Shig Sohn	Empire Technology Development LLC	China	201480075448.8	201480075448.8	Nov 16, 2015	Allowed
Chun Shig Sohn	Empire Technology Development LLC	United States of America	14/891,386	201480075448.8	Mar 21, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8822955	13/053,006	Feb 18, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8653230	13/030,934	Jan 7, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	10087269	14/149,611	Jan 7, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8687188	13/811,609	Jan 22, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9482619	14/152,320	Jan 22, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201180072431.3	201180072431.3	Sep 22, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	Japan	5852245	2014-528830	Sep 22, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9493351	13/811,885	Jan 23, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201180074686.3	201180074686.3	Dec 7, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	Japan	5836497	2014-545675	Dec 7, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	882384	13/811,610	Feb 6, 2013	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201180072511.9	201180072511.9	Sep 30, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	Japan	5813878	2014-531067	Sep 30, 2011	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9821296	14/407,957	Dec 12, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	Taiwan R.O.C.	1596191	102109997	Mar 21, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9238776	14/000,027	Aug 17, 2013	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201280071706.6	201280071706.6	Mar 22, 2012	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	8518499	13/813,965	Jan 29, 2013	Issued
Chun Shig Sohn	Empire Technology Development LLC	Taiwan R.O.C.	1468500	102101948	Jan 18, 2013	Issued
Chun Shig Sohn	Empire Technology Development LLC	Taiwan R.O.C.	1557212	102114801	Apr 25, 2013	Issued
Chun Shig Sohn	Empire Technology Development LLC	Taiwan R.O.C.	1542666	103114874	Apr 24, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9976081	14/787,569	Oct 28, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201380076051.6	201380076051.6	Mar 25, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9499410	14/431,018	Sep 29, 2012	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201280076123.2	201280076123.2	Apr 15, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9410081	14/435,842	Nov 5, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9790346	14/889,995	Nov 8, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	Taiwan R.O.C.	1636951	102140716	Nov 8, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	14/651,116	201380078289.2	Jun 10, 2015	Marked for Impairing
Chun Shig Sohn	Empire Technology Development LLC	China	Z1201380078289.2	201380078289.2	Jul 24, 2013	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	14/907,327	14/907,327	Jan 25, 2016	Published
Chun Shig Sohn	Empire Technology Development LLC	United States of America	10002720	14/773,216	Sep 4, 2015	Issued
Chun Shig Sohn	Empire Technology Development LLC	Taiwan R.O.C.	1614331	103120737	Jun 16, 2014	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	9908780	15/030,583	Apr 19, 2016	Issued
Chun Shig Sohn	Empire Technology Development LLC	China	20138008614.9	20138008614.9	Oct 31, 2013	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	15/306,420	201480078011.X	Oct 24, 2016	Published
Chun Shig Sohn	Empire Technology Development LLC	China	201380086149	201480078011.X	Apr 23, 2014	Published
Chun Shig Sohn	Empire Technology Development LLC	United States of America	15/030,580	15/030,580	Apr 19, 2016	Published
Chun Shig Sohn	Empire Technology Development LLC	United States of America	10071910	15/030,902	Oct 3, 2016	Marked for Impairing
Chun Shig Sohn	Empire Technology Development LLC	United States of America	1000048	15/124,397	Apr 28, 2016	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	15/124,397	15/124,397	Sep 8, 2016	Issued
Chun Shig Sohn	Empire Technology Development LLC	United States of America	15/136,429	15/136,429	Dec 5, 2016	Allowed

East China University of Science and Technology	Empire Technology Development LLC	United States of America	15/313.873	Nov 23, 2016	Published	
East China University of Science and Technology	Empire Technology Development LLC	United States of America	15/313.855	Nov 23, 2016	Published	
East China University of Science and Technology	Empire Technology Development LLC	United States of America	15/354.906	Jun 9, 2017	Marked for Infringing	
East China University of Science and Technology	Empire Technology Development LLC	United States of America	1013094.1	15/117426	Aug 8, 2016	Issued
East China University of Science and Technology	Empire Technology Development LLC	United States of America	15/310.760	Nov 12, 2016	Published	
East China University of Science and Technology	Empire Technology Development LLC	China	201480078714.2	May 14, 2014	Published	
East China University of Science and Technology	Empire Technology Development LLC	European Patent Office	14691721.4	May 14, 2016	Marked for Infringing	
EMPIRE TECHNOLOGY DEVELOPMENT LLC	Empire Technology Development LLC	United States of America	15/313.702	Nov 23, 2016	Published	
EMPIRE TECHNOLOGY DEVELOPMENT LLC	Empire Technology Development LLC	United States of America	8872709	Nov 13, 2009	Published	
EMPIRE TECHNOLOGY DEVELOPMENT LLC	Empire Technology Development LLC	United States of America	9160053	Nov 13, 2009	Issued	
EMPIRE TECHNOLOGY DEVELOPMENT LLC	Empire Technology Development LLC	United States of America	14/903.922	Jan 8, 2016	Published	
Endless Time & Space	Empire Technology Development LLC	Republic of Korea	8583151	13/576277		
Hankuk University of Foreign Studies Research and Industry-University Cooperation Foundation	Empire Technology Development LLC	China	10-1472796	10-2014-7011046		
Hankuk University of Foreign Studies Research and Industry-University Cooperation Foundation	Empire Technology Development LLC	China	21201180073821.2	201180073821.2		
Hankuk University of Foreign Studies Research and Industry-University Cooperation Foundation	Empire Technology Development LLC	Japan	5735180	2014-533171		
Hankuk University of Foreign Studies Research and Industry-University Cooperation Foundation	Empire Technology Development LLC	European Patent Office	2761914	11873151.2		
Hankuk University of Foreign Studies Research and Industry-University Cooperation Foundation	Empire Technology Development LLC	Germany	2761914	602011040527.6		
Hankuk University of Foreign Studies Research and Industry-University Cooperation Foundation	Empire Technology Development LLC	France	2761914	11873151.2		
Hankuk University of Foreign Studies Research and Industry-University Cooperation Foundation	Empire Technology Development LLC	United Kingdom	2761914	11873151.2		
Hiroshima University	Empire Technology Development LLC	Japan	4265817	2008-538611		
Hiroshima University	Empire Technology Development LLC	United States of America	7829935	12/600986		
Hiroshima University	Empire Technology Development LLC	Japan	4392045	2008-070602		
Hiroshima University	Empire Technology Development LLC	United States of America	4322958	12/212406		
Hiroshima University	Empire Technology Development LLC	Japan	4394751	2008-552633		
Hiroshima University	Empire Technology Development LLC	Japan	4460021	2009-525838		
Hiroshima University	Empire Technology Development LLC	United States of America	4460021	2009-213934		
Hiroshima University	Empire Technology Development LLC	Japan	4322957	8338821	12/601790	
Hiroshima University	Empire Technology Development LLC	United States of America	4460011	2008-538608		
Hiroshima University	Empire Technology Development LLC	Japan	7974648	12/665264		
Hiroshima University	Empire Technology Development LLC	United States of America	8005150	2008-138025		
Hiroshima University	Empire Technology Development LLC	United States of America	9215495	13/153002		
Hiroshima University	Empire Technology Development LLC	United States of America	9456224	14/931321		
Hiroshima University	Empire Technology Development LLC	Japan	5035732	2009-525836		
Hiroshima University	Empire Technology Development LLC	United States of America	4392051	8331120	12/665316	
Hiroshima University	Empire Technology Development LLC	Japan	4392052	2008-548909		
Hiroshima University	Empire Technology Development LLC	United States of America	8044382	12/601794		
Hiroshima University	Empire Technology Development LLC	United States of America	8330141	13/273449		
Hiroshima University	Empire Technology Development LLC	United States of America	8470693	12/665242		
Hiroshima University	Empire Technology Development LLC	Japan	4493730	2009-525835		
Hiroshima University	Empire Technology Development LLC	United States of America	8462105	12/665591		
Hiroshima University	Empire Technology Development LLC	Japan	4465556	2008-035661		
Hiroshima University	Empire Technology Development LLC	United States of America	8368046	12/272285		
Hiroshima University	Empire Technology Development LLC	United States of America	8980658	13/755846		
Hiroshima University	Empire Technology Development LLC	Japan	4215812	2008-045785		
Hiroshima University	Empire Technology Development LLC	United States of America	7720389	12/393458		
Hiroshima University	Empire Technology Development LLC	Japan	4227667	2008-538610		
Hiroshima University	Empire Technology Development LLC	United States of America	7847225	12/602072		
Hiroshima University	Empire Technology Development LLC	Japan	4229980	2008-542958		
Hiroshima University	Empire Technology Development LLC	United States of America	7853075	12/601595		
Hiroshima University	Empire Technology Development LLC	Japan	4303312	2008-552632		
Hiroshima University	Empire Technology Development LLC	United States of America	7860328	12/664946		
Hiroshima University	Empire Technology Development LLC	Japan	4208958	2008-527230		
Hiroshima University	Empire Technology Development LLC	United States of America	7746678	12/523876		
Hiroshima University	Empire Technology Development LLC	Japan	4427574	2007-308586		
Hiroshima University	Empire Technology Development LLC	United States of America	7957171	12/128126		
Hiroshima University	Empire Technology Development LLC	Japan	4594971	2007-236635		
Hiroshima University	Empire Technology Development LLC	United States of America	7898020	12/523862		
Hiroshima University	Empire Technology Development LLC	United States of America	8653318	12/596698		
Hiroshima University	Empire Technology Development LLC	Japan	2007-131078	2007-131078		
Hiroshima University	Empire Technology Development LLC	United States of America	4427589	2008-150335		
Hiroshima University	Empire Technology Development LLC	United States of America	7907847	12/328341		
Hiroshima University	Empire Technology Development LLC	United States of America	9430034	14/422560		
Hiroshima University	Empire Technology Development LLC	United States of America	9430424	14/422558		
Hua Zhong University of Science Technology	Empire Technology Development LLC	Republic of Korea	10-1715578	10-2016-7000465		
Hua Zhong University of Science Technology	Empire Technology Development LLC	European Patent Office	13889335.9	10-2016-7000465		

Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	9586952, 14/441320	May 7, 2015	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	9785558, 15/032636	Apr 28, 2016	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	China	201380080189, 3	Oct 29, 2013	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	9275240, 14/422591	Feb 19, 2015	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	9772881, 14/647959	May 28, 2015	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	9390513, 14/422932	Feb 20, 2015	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	15/537, 274	Jun 16, 2017	Marked for Infringing
Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	10083117, 15/508028	Mar 1, 2017	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	United States of America	9934281, 15/126248	Sep 30, 2016	Published
Hua Zhong University of Science Technology	Empire Technology Development LLC	Republic of Korea	10-2009-0024396	Sep 14, 2016	Issued
Hua Zhong University of Science Technology	Empire Technology Development LLC	China	21200910260664, 0	Dec 18, 2009	Issued
IGRS Engineering Lab Ltd.	Empire Technology Development LLC	United States of America	8971154, 12/502933	Jul 14, 2009	Issued
IGRS Engineering Lab Ltd.	Empire Technology Development LLC	United States of America	8449122, 13/205539	Jul 20, 2009	Issued
IGRS Engineering Lab Ltd.	Empire Technology Development LLC	United States of America	8849247, 13/258301	Sep 21, 2011	Issued
IGRS Engineering Lab Ltd.	Empire Technology Development LLC	United States of America	7892792, 12/491909	Jun 25, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8361188, 12/550210	Aug 28, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8835602, 12/550977	Aug 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	856866, 12/551101	Aug 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8264191, 12/551109	Aug 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8213307, 12/510246	Jul 27, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8364616, 12/533064	Jul 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	India	0916/CHE/2009	Apr 21, 2009	Published
Indian Institute of Science	Empire Technology Development LLC	United States of America	8442464, 12/551038	Aug 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	China	20108003353, 1	May 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Japan	2012-512463	May 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	India	12/5/CHE/2009	May 27, 2009	Published
Indian Institute of Science	Empire Technology Development LLC	United States of America	7973594, 12/551010	Aug 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	India	0252/CHE/2009	Feb 5, 2009	Published
Indian Institute of Science	Empire Technology Development LLC	United States of America	8063701, 12/649474	Dec 30, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	Republic of Korea	10-2011-7030901	Sep 10, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	China	201080024752, 1	Sep 10, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Germany	112010004479, 1	Sep 10, 2010	Published
Indian Institute of Science	Empire Technology Development LLC	United States of America	8224604, 12/539372	Aug 11, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8443330, 12/511607	Jul 29, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8737547, 12/645695	Dec 23, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	China	201080048564, 2	Sep 8, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8279964, 12/420968	Apr 9, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8111779, 12/420984	Apr 9, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8320432, 12/430635	Apr 27, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8964889, 13/658757	Oct 23, 2012	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8089916, 12/419430	Apr 7, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8169181, 12/647170	Dec 24, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	China	201080045835, 9	Aug 13, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Japan	2012-526151	Aug 13, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8410733, 12/636418	Dec 11, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8730825, 12/531112	Jul 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	China	201080028603, 2	May 18, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Republic of Korea	10-2011-7030603	May 18, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9118980, 12/550168	Aug 28, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9749716, 14/816950	Aug 3, 2015	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8432848, 12/550177	Aug 28, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	China	201080027716, 0	May 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Republic of Korea	10-2011-7030497	May 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9083420, 13/051830	Mar 27, 2013	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8306329, 12/618239	Nov 13, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8229074, 12/620990	Nov 18, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	China	201080041998, X	Aug 10, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Japan	2012-525233	Aug 10, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Republic of Korea	10-2014-7026401	Sep 16, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8639486, 12/560925	Jul 21, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8675060, 12/643207	Dec 21, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	New Zealand	591722	Aug 12, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9224054, 14/177493	Feb 11, 2014	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8232093, 12/480308	Jun 8, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8513019, 13/560086	Jul 27, 2012	Issued

Indian Institute of Science	Empire Technology Development LLC	United States of America	8641617	12/55/0199	Aug 28, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9603331	14/152463	Jan 10, 2014	Issued
Indian Institute of Science	Empire Technology Development LLC	India	0766/CHE/2009		Apr 2, 2009	Published
Indian Institute of Science	Empire Technology Development LLC	United States of America	8250927	12/2746091	Mar 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	7982371	12/718159	Mar 5, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8508108	13/161218	Jun 15, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8630971	12/652408	Jan 5, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	China	Z1201080045971.8	201080045971.8	Sep 8, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Japan	5808224	2012-539439	Sep 8, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Republic of Korea	10-1668903	10-2012-7008780	Sep 8, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Australia	2010320612	2010320612	Sep 8, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	European Patent Office	106831229.9		Sep 8, 2010	Published
Indian Institute of Science	Empire Technology Development LLC	United States of America	850344	12/771730	Apr 30, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8804858	13/933775	Jul 2, 2013	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	8838271	13/290662	Feb 15, 2012	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	882344	13/139223	Jun 10, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9267854	13/276542	Dec 6, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9112479	13/265288	Oct 19, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	9013092	13/139413	Jun 13, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	European Patent Office	106852468.7		Nov 22, 2010	Marked for Inpat'ing
Indian Institute of Science	Empire Technology Development LLC	United States of America	8594167	13/265488	Oct 20, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	Japan	2013-52371		Nov 4, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Republic of Korea	5712293	10-2013-7007317	Aug 26, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America	10-1501664		Sep 1, 2015	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jun 13, 2013	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Nov 2, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jun 21, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Feb 9, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Nov 23, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Apr 7, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Mar 4, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Aug 18, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Nov 30, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	China	Z1201080034465.9	201080034465.9	Jul 2, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Republic of Korea	10-1289586	10-2012-7001806	Jul 2, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Dec 3, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Dec 31, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Dec 14, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Feb 19, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jul 1, 2013	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jan 4, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Sep 20, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jul 22, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jun 10, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	China	Z1201080086555.X	201080086555.X	Aug 27, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jun 4, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jun 17, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Dec 27, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jun 4, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Apr 21, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Nov 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	European Patent Office	2543141	10846922.2	Nov 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	China	Z1201080030261.8	201080030261.8	Nov 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Germany	2543141	10846922.2	Nov 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United Kingdom	2543141	602010040676.8	Nov 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	France	2543141	10846922.2	Nov 17, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Feb 17, 2012	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Feb 10, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	China	Z1201080062225.X	201080062225.X	Nov 11, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	Japan	5438226	2012-545461	Nov 11, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Oct 21, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Feb 8, 2011	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Oct 17, 2009	Issued
Indian Institute of Science	Empire Technology Development LLC	United States of America			Jun 28, 2010	Issued
Indian Institute of Science	Empire Technology Development LLC	India	0767/DBL/2011		Mar 18, 2011	Published
Indian Institute of Science	Empire Technology Development LLC	United States of America	14/907/296		Nov 25, 2016	Allowed
Indian Institute of Science	Empire Technology Development LLC	European Patent Office	13892595.3		Nov 16, 2013	Marked for Inpat'ing

Indian Institute of Technology Delhi	Empire Technology Development LLC	United States of America	9135662, 13/838362	Mar 15, 2013	Issued
Indian Institute of Technology Delhi	Empire Technology Development LLC	United States of America	9947118, 14/723341	May 27, 2015	Issued
Indian Institute of Technology Delhi	Empire Technology Development LLC	Japan	6081520	2015-107960	May 27, 2015
Indian Institute of Technology Delhi	Empire Technology Development LLC	India	1413/DEL/2014	14/06/2088	May 28, 2014
Indian Institute of Technology Delhi	Empire Technology Development LLC	United States of America	4097/DEL/2015	13/07/2015	Published
Indian Institute of Technology Kanpur	Empire Technology Development LLC	India	8789348, 13/142843	14/03/4979	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	8652373, 13/147502	2013-528775	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	8583932, 13/017303	14/03/4979	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	6106086	8571267, 12/870569	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	Japan	8571267, 12/870569	8463021, 12/883649	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9778202, 13/878944	2013-533292	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	5701392	10-2013-7012514	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	Republic of Korea	10-1442035	9345773, 13/880299	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9345773, 13/880299	8883503, 13/885839	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	8883503, 13/885839	8580062, 13/880020	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	8524178, 13/321146	8801972, 13/371063	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	8504581, 13/072916	9311897, 13/264712	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	21201180062695.0	201180062695.0	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	5819440	2013-546781	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	Japan	10-1592272	10-2013-7018325	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	Republic of Korea	8587881, 13/176565	9733366, 14/397478	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9733366, 14/397478	9540546, 13/982458	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	21201280057431.0	201280057431.0	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	5914692	2014-546674	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	Japan	3719/DEL/2011	8545945, 13/325978	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	8545945, 13/325978	9527720, 14/016281	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9809466, 13/482564	9576767, 14/891046	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	1545767	100215412	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	Taiwan R.O.C.	9515273, 14/380726	10007883, 14/425964	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	10007883, 14/425964	201380080682.5	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	9831453, 15/026705	9680097, 14/782400	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9680097, 14/782400	201480032057.8	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	21201480032057.8	14/435.432	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9627840, 14/131899	9536935, 14/644220	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9536935, 14/644220	201510109094.0	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	9844222, 14/462380	201410410762.9	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	201410410762.9	201480065380.5	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	21201480065380.5	14666113.5	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	European Patent Office	14666113.5	14/770.095	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	201480072395.4	00050/DEL/2014	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	India	00050/DEL/2014	15/115.263	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	15/115.263	9908102, 14/663070	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9908102, 14/663070	2232/DEL/2014	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	India	2232/DEL/2014	14/818.250	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	14/818.250	1665/DEL/2014	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	India	1665/DEL/2014	9940868, 14/883645	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9940868, 14/883645	201510606314.4	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	201510606314.4	3035/DEL/2014	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	India	3035/DEL/2014	201280076674.4	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	China	201280076674.4	9311323, 13/885395	Dec 14, 2018
Indian Institute of Technology Kanpur	Empire Technology Development LLC	United States of America	9311323, 13/885395		Dec 14, 2018



Indian Institute of Technology Kharagpur	Empire Technology Development LLC	United States of America	15/269,577	Sep 19, 2016	Published
Indian Institute of Technology Kharagpur	Empire Technology Development LLC	United States of America	9813235 14/350044	Apr 4, 2014	Issued
Indian Institute of Technology Kharagpur	Empire Technology Development LLC	United States of America	15/118,120	Aug 11, 2016	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8260589 12/647072	Dec 24, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8660825 13/654547	Aug 1, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8268359 12/639403	Dec 16, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	21201080037762.9	201080037762.9	
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	5492301	2012-526135	
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8519489 12/638167	Dec 15, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	8659391 12/636370	Aug 13, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	5931725	201080036576.3	
Indian Institute of Technology Madras	Empire Technology Development LLC	India	21201080041994.1	1967/CHE/2009	
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8191126 12/434728	Aug 18, 2009	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8187976 12/643992	May 4, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	21201080041994.1	201080041994.1	
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	5504346	2012-526134	
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	10-1288517	10-2012-7007722	
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8395152 13/148472	Apr 17, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	21201510523337.5	201510523337.5	
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8431037 12/646435	Dec 23, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	21201080060864.2	201080060864.2	
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	5497191	2012-539425	
Indian Institute of Technology Madras	Empire Technology Development LLC	India	2748/CHE/2009	Nov 2, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8358833 12/768467	Nov 10, 2009	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8718357 13/717061	Apr 27, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8294306 12/725053	Dec 17, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8339470 12/627725	Mar 16, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8692902 13/677235	Nov 30, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	India	3295/CHE/2010	Nov 14, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9327054 13/202941	Nov 4, 2010	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8956517 12/827613	Aug 23, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	15/214,192	Jun 30, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8999717 13/504440	Jul 19, 2016	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	China	21201180062874.4	201180062874.4	
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	5759514	2013-546772	
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9494517 14/617280	Feb 14, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9878913 13/160916	Feb 9, 2015	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9224537 13/817723	Jun 15, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9034978 13/807971	Feb 19, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	21201180073810.4	201180073810.4	
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	6006319	2014-535173	
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8828193 13/226321	Dec 22, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	14/459,860	Dec 22, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9464220 13/083505	Sep 6, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8623784 13/786166	Aug 14, 2014	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9468903 14/093465	May 3, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	21201180074106.0	Oct 5, 2016	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	China	6007254	Dec 2, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	India	3592/CHE/2011	Dec 19, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9362378 13/783742	Oct 19, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	201180074423.2	Oct 19, 2011	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	10-1823111	Sep 10, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9882116 15/144585	Dec 20, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	16/001,393	May 2, 2016	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	India	3506/CHE/2012	Jun 6, 2018	Pending
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	10003084 14/143395	Aug 25, 2012	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9903821 14/088193	Jan 7, 2015	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9170203 13/472987	Oct 30, 2015	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9404493 14/124850	May 16, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9944774 14/141009	Dec 9, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	15/193,224	Dec 22, 2014	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9424505 13/823598	Jun 27, 2016	Allowed
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9847534 14/397197	Mar 21, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9733184 14/389702	Mar 26, 2015	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	201280073532.7	Sep 30, 2014	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	Z1201280073532.7	Aug 10, 2012	Issued



Indian Institute of Technology Madras	Empire Technology Development LLC	India	12/73/CHE/2012	Mar 30, 2012	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9953367 14/783811	Oct 9, 2015	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	India	1610/CHE/2013	Apr 9, 2013	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	European Patent Office	14/782984.0	Apr 9, 2014	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9980076 14/784889	Sep 12, 2014	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8828735 13/528981	Sep 12, 2014	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9201001 14/659956	Aug 14, 2014	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9149833 14/077806	Nov 12, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9986488 14/781016	Sep 28, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9926202 14/917233	Feb 16, 2016	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	201480045241.6	Aug 14, 2014	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9663860 14/914499	Feb 25, 2016	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	10047311 15/103172	Jun 9, 2016	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9982002 15/029945	Apr 15, 2016	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	India	4639/CHE/2013	Oct 15, 2013	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9686106 14/742444	Jun 17, 2015	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	India	2970/CHE/2014	Jun 18, 2014	Marked for Inpainting
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	14/634.662	Feb 27, 2015	Marked for Inpainting
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8700548 13/785460	Oct 20, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9201042 13/809494	Jan 10, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	2013-519167	Nov 12, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	European Patent Office	10854661.5	Nov 12, 2010	Published
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9128014 13/809328	Jan 9, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8577873 13/178381	Jul 7, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9317562 14/049417	Oct 9, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9842147 15/063829	Mar 8, 2016	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8478541 12/854116	Aug 10, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9152877 13/785325	Oct 19, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	201180040343.5	Jan 13, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	10-1484971	Nov 13, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9924488 14/890683	Jan 12, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	15/923.512	Nov 13, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9300694 13/136397	Mar 16, 2018	Pending
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	10-1527710	Jun 8, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9729602 15/019408	Jan 11, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9942877 13/580621	Feb 9, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	10-2014-701065	Aug 22, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	201180074116.4	Oct 17, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	2014-535629	Oct 17, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	European Patent Office	11874270.9	Oct 17, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9246673 13/703133	Dec 10, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	10-2014-7013227	Dec 28, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	201180074627.6	Dec 28, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9231257 14/110614	Oct 8, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	201380072985.2	Sep 27, 2013	Marked for Inpainting
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	10-2016-7011033	Mar 18, 2016	Marked for Inpainting
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	13/023.068	Mar 10, 2016	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9740797 15/021133	Sep 28, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8339279 12/568000	Nov 16, 2012	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9170291 13/678920	Dec 2, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8406554 12/629187	Mar 7, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8744208 13/788416	Dec 23, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9116675 12/646681	Dec 28, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8476039 12/648297	May 17, 2013	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8835151 13/897251	Dec 24, 2009	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8694373 12/647255	Dec 7, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	8518177 12/962174	Mar 3, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Japan	9070936 13/039737	Jan 31, 2006	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Republic of Korea	2006-023474	Jan 31, 2007	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	European Patent Office	10-0088-7021165	Jan 31, 2007	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	07707806.1	Jan 31, 2007	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	Germany	200780007252.5	Jan 31, 2007	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	France	07707806.1	Jan 31, 2007	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United Kingdom	2007013	Jan 31, 2007	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	United States of America	9037251 13/124357	Apr 14, 2011	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	201080067806.2	Sep 2, 2010	Issued
Indian Institute of Technology Madras	Empire Technology Development LLC	China	21201080067806.2	Sep 2, 2010	Issued

Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	European Patent Office	2385015	10854014.7	Sep 2, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Germany	2385015	6020100253115.2	Sep 2, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	India		1822/CHE/2010	Jun 28, 2010 Marked for Inpatifing
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	8563092	121881700	Sep 14, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	9322713	141235003	Jun 28, 2014 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	India		2997/CHE/2011	Aug 30, 2011 Published
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	8246928	131078154	Apr 1, 2011 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	8502223	131552417	Jul 18, 2012 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	China	9568214	141124243	Dec 3, 2013 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	21201280026128.4	201280026128.4	Jul 7, 2012 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Republic of Korea	5752852	2014-514206	Jul 7, 2012 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	India	10-1586782	10-2013-7032611	Jun 7, 2012 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		1940/CHE/2011	Jun 7, 2011 Published
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	9376435	131489876	Jun 6, 2012 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	9994569	151516709	May 17, 2016 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	India	9937538	151046031	Feb 17, 2016 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		2287/CHE/2012	Jun 7, 2012 Published
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	8642764	131597323	Aug 29, 2012 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	8705418	121716803	Mar 3, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	9325614	141197414	Mar 5, 2014 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	4582727	2009-541653	Jul 15, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8102894	Dec 17, 2009 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	4429847	2004-250797	Aug 30, 2004 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	4216849	2005-511552	Jul 9, 2004 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	5342096	2005-211995	Jul 22, 2005 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	4612737	2009-535159	Jun 19, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8073018	Dec 18, 2009 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	4288378	8599941	Oct 31, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan		2008-309569	Dec 4, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	4553409	8019005	Dec 2, 2009 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan		2010-042252	Feb 26, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8090000	Aug 29, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America	5602975	8565209	Nov 22, 2011 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan		2014-510992	Sep 9, 2011 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8383023	Dec 8, 2009 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8428547	Oct 22, 2009 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Republic of Korea	10-1371193	10-2012-7012772	Oct 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	China	21201080047504.9	201080047504.9	Oct 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8913526	Aug 29, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8029851	Apr 22, 2013 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8568876	Aug 29, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8216961	Sep 1, 2011 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8415567	Aug 27, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8088439	Jun 4, 2012 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Republic of Korea	10-1047969	10-2008-0123963	Aug 29, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8511483	Dec 8, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8137748	Nov 8, 2011 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		7816297	Aug 27, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Republic of Korea	10-1153076	10-2008-0124025	Dec 8, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Republic of Korea	10-0993235	10-2008-0124023	Dec 8, 2008 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8900330	Feb 26, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	China	21201080063043.4	201080063043.4	Dec 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8287775	Feb 17, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	China	21201080063048.7	201080063048.7	Dec 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	5596180	2012-552789	Dec 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8298453	Jan 6, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Republic of Korea	10-1224286	10-2010-0033465	Apr 12, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	China	2120108005239.9	20108005239.9	Dec 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	5568643	2012-544402	Dec 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8801976	Sep 28, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8828142	Sep 28, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	China	21201080062927.8	201080062927.8	Dec 20, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8415859	Oct 27, 2009 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	Japan	5574801	2012-536652	Oct 14, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	China	21201080048505.5	201080048505.5	Oct 14, 2010 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		8247025	May 19, 2009 Issued
Jawaharlal Nehru Centre for Advanced Scientific Research	Empire Technology Development LLC	United States of America		9095855	Jul 20, 2012 Issued

Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	7973997 12/550547	Aug 31, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8432604 13/151080	Jun 1, 2011	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Japan	5286450	2012-526657	Aug 26, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	European Patent Office	2473878	10812294.6	Aug 26, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	China	21201080049194.4	60201080049194.4	Aug 26, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	Germany	2473878	10812294.6	Aug 26, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United Kingdom	2473878	10812294.6	Aug 26, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8062568 12/548859	Aug 27, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8920656 13/246393	Sep 27, 2011	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Republic of Korea	10-1312001	10-2011-7018195	Aug 27, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	Japan	5308541	2011-550076	Aug 27, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	Japan	5701340	2013-136483	Jun 28, 2011	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8147704 12/500946	Jul 10, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8608468 13/407488	Feb 28, 2012	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8592732 12/549012	Aug 27, 2010	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	China	5572214	201080037959.2	Aug 27, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9370047 14/054676	Oct 15, 2013	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8536300 12/650058	Dec 30, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Republic of Korea	10-1178287	10-2010-0019494	Mar 4, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8920681 12/650175	Dec 30, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Republic of Korea	10-1178289	10-2010-0019504	Mar 4, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9558863 14/559558	Dec 3, 2014	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8535571 12/650025	Dec 30, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Republic of Korea	10-1178288	10-2010-0019500	Mar 4, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9243111 14/027069	Sep 13, 2013	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8499792 12/540875	Aug 13, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8431189 12/645219	Dec 22, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8028869 12/500904	Jul 10, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Republic of Korea	10-1313388	2011-7019969	Jul 5, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	Japan	5583752	2012-501947	Jul 5, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8741417 12/762183	Apr 16, 2010	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9164198 14/260088	Apr 23, 2014	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8344295 12/579128	Oct 14, 2010	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Republic of Korea	10-1343014	10-2012-7012209	Oct 8, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	Japan	5337309	2012-534102	Oct 8, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8202436 12/642556	Dec 18, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8521189 12/648300	May 19, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9168680 13/559640	Jul 27, 2012	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	Japan	5550722	2012-514897	Jul 5, 2010	Issued
Korea University Research and Business Foundation	Empire Technology Development LLC	European Patent Office	10797266.3	2013-540456	Jul 5, 2010	Published
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8563086 12/507718	Jul 22, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9102515 14/054679	Oct 15, 2013	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9126836 12/648110	Dec 28, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	10077191 14/813887	Jul 30, 2015	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8221592 12/620761	Nov 18, 2009	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	8470256 13/495266	Nov 13, 2012	Issued	
Korea University Research and Business Foundation	Empire Technology Development LLC	United States of America	9197902 13/320748	Nov 15, 2011	Issued	
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	Japan	5640157	2013-540456	Jan 14, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	Republic of Korea	10-1490153	10-2013-7017215	Nov 14, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	United States of America	8451147 13/320683	Oct 18, 2010	Issued	
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	China	2120108006804.3	20108006804.3	Oct 18, 2010	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	Republic of Korea	10-1451254	10-2013-7003963	Oct 18, 2010	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	Germany	112010005747.8	112010005747.8	Oct 18, 2010	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	United States of America	9408242 13/266128	Oct 18, 2010	Published	
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	China	21201180067231.9	201180067231.9	Feb 24, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	Japan	5687773	2013-547916	Feb 24, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	Republic of Korea	10-1500477	10-2013-7020643	Feb 24, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	European Patent Office	2661816	1185-6899.9	Feb 24, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	France	2661816	1185-6899.9	Feb 24, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	Germany	2661816	1185-6899.9	Feb 24, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	United Kingdom	2661816	1185-6899.9	Feb 24, 2011	Issued
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	India	0060/CHE/2011	Jan 7, 2011	Published	
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	United States of America	8570203 13/389562	Feb 8, 2012	Issued	
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	United States of America	9100044 14/053470	Oct 15, 2013	Issued	
M.S. Ramalan School of Advanced Studies	Empire Technology Development LLC	United States of America	8929622 12/634260	Dec 9, 2009	Issued	

Manpai Institute of Technology	Empire Technology Development LLC	United States of America	9516346	12/62/7737	Nov 30, 2009	Issued
Manpai Institute of Technology	Empire Technology Development LLC	United States of America	9196047	13/375135	Nov 29, 2011	Issued
Manpai Institute of Technology	Empire Technology Development LLC	United States of America	8295280	12/726945	Mar 18, 2010	Issued
Manpai Institute of Technology	Empire Technology Development LLC	India	281656	2254/CHE/2009	Sep 16, 2009	Issued
Manpai Institute of Technology	Empire Technology Development LLC	United States of America	8659463	13/821977	Jan 3, 2012	Issued
Manpai Institute of Technology	Empire Technology Development LLC	China	Z1201080069132.X	201080069132.X	Dec 1, 2010	Issued
Manpai University	Empire Technology Development LLC	United States of America	8516837	13/030899	Feb 18, 2013	Issued
Manpai University	Empire Technology Development LLC	United States of America	9305311	13/808910	Jan 8, 2013	Issued
Manpai University	Empire Technology Development LLC	China	Z1201080068985.1	201080068985.1	Dec 1, 2010	Issued
Manpai University	Empire Technology Development LLC	Japan	35312889	2013-517564	Dec 1, 2010	Issued
Manpai University	Empire Technology Development LLC	Republic of Korea	10-1428618	10-2013-7093405	Dec 1, 2010	Issued
Manpai University	Empire Technology Development LLC	Japan	5841661	9085079	Aug 16, 2012	Issued
McGill University	Empire Technology Development LLC	United States of America	9680271	14/492748	Aug 1, 2011	Issued
McGill University	Empire Technology Development LLC	United States of America	9400269	14/492811	Sep 22, 2014	Issued
McMaster University	Empire Technology Development LLC	United States of America	9257601	13/812058	Sep 22, 2014	Issued
McMaster University	Empire Technology Development LLC	China	Z1201280021206.1	201280021206.1	Jan 24, 2013	Issued
McMaster University	Empire Technology Development LLC	United States of America	9824892	13/812089	May 17, 2012	Issued
McMaster University	Empire Technology Development LLC	Republic of Korea	10-1554932	10-2013-7031162	May 17, 2012	Issued
McMaster University	Empire Technology Development LLC	China	10-1659914	9294711	May 17, 2012	Marked for Inpat'ing
McMaster University	Empire Technology Development LLC	Republic of Korea	10-1659914	10-2014-7033807	Nov 25, 2013	Issued
McMaster University	Empire Technology Development LLC	United States of America	9908087	15/054162	Mar 15, 2013	Issued
McMaster University	Empire Technology Development LLC	United States of America	9591272	14/115093	Feb 26, 2016	Issued
McMaster University	Empire Technology Development LLC	Japan	5992090	2015-502029	Oct 31, 2013	Issued
McMaster University	Empire Technology Development LLC	United States of America	9942468	15/422456	Mar 28, 2013	Issued
McMaster University	Empire Technology Development LLC	China	201380080170.9	201380080170.9	Feb 1, 2017	Issued
Minister of Industry for Communications Research Centre Canada	Empire Technology Development LLC	United States of America	9841381	13/027644	Oct 10, 2013	Allowed
Minister of Industry for Communications Research Centre Canada	Empire Technology Development LLC	United States of America	9288126	12/845360	Apr 26, 2016	Issued
Minister of Industry for Communications Research Centre Canada	Empire Technology Development LLC	Canada	2,711.892	2,711.892	Jul 30, 2010	Issued
Minister of Industry for Communications Research Centre Canada	Empire Technology Development LLC	United States of America	9762467	15/052345	Feb 24, 2016	Issued
Minister of Industry for Communications Research Centre Canada	Empire Technology Development LLC	United States of America	9882192	13/082102	Apr 7, 2011	Issued
Moriota Mizuno	Empire Technology Development LLC	Japan	5681965	2007-248433	Sep 26, 2007	Issued
Moriota Mizuno	Empire Technology Development LLC	United States of America	8421485	12/665431	Dec 18, 2009	Issued
Nanjing University	Empire Technology Development LLC	China	Z1200810041377.6	200810041377.6	Aug 4, 2008	Issued
Nanjing University	Empire Technology Development LLC	China	Z1200810041376.1	200810041376.1	Aug 4, 2008	Issued
Nanjing University	Empire Technology Development LLC	China	Z1200810041375.7	200810041375.7	Aug 4, 2008	Issued
Nanjing University	Empire Technology Development LLC	China	Z1200810041376.0	200810041376.0	Aug 4, 2008	Issued
Nanjing University	Empire Technology Development LLC	China	Z1200710133806.8	200710133806.8	Oct 9, 2007	Issued
Nanjing University	Empire Technology Development LLC	United States of America	8155733	12/467456	May 15, 2009	Issued
Nanjing University	Empire Technology Development LLC	China	8543196	13/407456	Feb 28, 2012	Issued
Nanjing University	Empire Technology Development LLC	United States of America	21200980115995.3	200980115995.3	Dec 7, 2009	Issued
Nanjing University	Empire Technology Development LLC	United States of America	8753546	12/993333	Nov 18, 2010	Issued
Nanjing University	Empire Technology Development LLC	United States of America	8847948	13/010087	May 4, 2011	Issued
Nanjing University	Empire Technology Development LLC	Brazil	11 2012.025192.9	11 2012.025192.9	May 31, 2010	Pending
Nanjing University	Empire Technology Development LLC	United States of America	9545603	13/505715	May 2, 2012	Issued
Nanjing University	Empire Technology Development LLC	United States of America	9116300	13/146308	Jul 26, 2011	Issued
Nanjing University	Empire Technology Development LLC	China	Z120108006730.3	20108006730.3	Jun 25, 2010	Issued
Nanjing University	Empire Technology Development LLC	Japan	5669937	20108006730.3	Jun 25, 2010	Issued
Nanjing University	Empire Technology Development LLC	European Patent Office	10853449.6	10853449.6	Jun 25, 2010	Published
Nanjing University	Empire Technology Development LLC	United States of America	9744495	14/427037	May 25, 2010	Issued
Nanjing University	Empire Technology Development LLC	United States of America	8859689	13/814710	Feb 6, 2013	Issued
Nanjing University	Empire Technology Development LLC	China	Z1201180074302.8	201180074302.8	Nov 10, 2011	Issued
Nanjing University	Empire Technology Development LLC	Japan	5901776	2014-533753	Nov 10, 2011	Issued
Nanjing University	Empire Technology Development LLC	Republic of Korea	10-1593928	10-2014-7013891	Nov 10, 2011	Issued
Nanjing University	Empire Technology Development LLC	United States of America	9949721	14/779172	Sep 22, 2013	Issued
Nanjing University	Empire Technology Development LLC	China	Z1201380076565.1	201380076565.1	May 29, 2009	Issued
National Center for Biological Sciences	Empire Technology Development LLC	United States of America	9250232	12/474550	Nov 30, 2009	Issued
National Center for Biological Sciences	Empire Technology Development LLC	United States of America	8476006	12/628064	Nov 30, 2009	Issued
National Center for Biological Sciences	Empire Technology Development LLC	United States of America	8906604	13/915195	Jun 11, 2013	Issued
National Center for Biological Sciences	Empire Technology Development LLC	United States of America	8153437	12/720952	Mar 10, 2010	Issued
National Center for Biological Sciences	Empire Technology Development LLC	United States of America	8216850	13/220973	Aug 12, 2011	Issued
National Center for Biological Sciences	Empire Technology Development LLC	United States of America	9722336	14/851446	Sep 16, 2015	Issued
National University of Singapore	Empire Technology Development LLC	United States of America	9733393	13/148208	Aug 5, 2011	Issued
National University of Singapore	Empire Technology Development LLC	China	Z1201180061852.6	201180061852.6	Feb 24, 2011	Issued
National University of Singapore	Empire Technology Development LLC	Japan	35063033	2013-554421	Feb 24, 2011	Issued
National University of Singapore	Empire Technology Development LLC	United States of America	9453942	13/492011	Jun 8, 2012	Issued

New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8587490 12/510040	Jun 27, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Japan	5352793	2012-522833	Jun 11, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9041612 14/058147	Oct 18, 2013	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8159952 12/368516	Feb 10, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8995456 12/420714	Apr 8, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	European Patent Office	2238895	101054701.6	Feb 25, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	Japan	5203402	2010-024864	Feb 8, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	Germany	2238895	602010002368.0	Feb 25, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United Kingdom	2238895	10154701.6	Feb 25, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	France	2238895	10154701.6	Feb 25, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8200034 12/422683	Apr 13, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8300650 12/465328	Jun 16, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	21201080036269.5	8537892 12/422138	Jun 11, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8184627 12/396039	Apr 10, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8310930 12/479438	Jun 5, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	21201080024841.6	201080024841.6	Jun 3, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	Japan	5528546	2012-514139	Jun 3, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9215090 13/653215	Oct 16, 2012	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Germany	112010002237.2	Jun 3, 2010	Published	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8675673 12/511424	Jun 29, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	21201080033402.1	9100322 14/166802	Jun 10, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9100322 14/166802	Jan 28, 2014	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	European Patent Office	10804851.3	Jun 10, 2010	Published	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8786974 12/490293	Dec 29, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	12/649 013	Dec 29, 2009	Allowed	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8385231 12/512635	Jul 30, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	201080033581.9	Jun 10, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	10804852.1	Jun 10, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Germany	602010049889.1	Jun 10, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	France	2460324	Jun 10, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United Kingdom	2460324	Jun 10, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8885514 12/512792	Jun 10, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8095006 12/289909	Feb 20, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8260067 12/421949	Apr 10, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8121119 12/418681	Apr 6, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8086978 12/479574	Jun 5, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	201080023940.2	Jun 3, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Japan	5461693	2012-514142	Jun 3, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	Germany	112010002229.1	Jun 3, 2010	Published	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8274988 12/511814	Jun 29, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	21201080033162.5	Jun 10, 2010	Published	
New Jersey Institute of Technology	Empire Technology Development LLC	European Patent Office	10804853.9	Apr 13, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8281138 12/422677	Jun 16, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8275019 12/465814	Aug 22, 2012	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8472502 13/592681	Feb 4, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8379746 12/365800	Oct 17, 2008	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8175324 12/253825	Apr 27, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8355426 12/430788	Feb 26, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	201010124318.2	Apr 8, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1242650	10-2011-7028392	Apr 8, 2009	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9258361 12/420724	Feb 4, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8576896 12/365812	Dec 18, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Japan	5203345	2009-287081	Mar 12, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8351786 12/723578	Mar 13, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	21201080021246.7	Mar 13, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Germany	112010001305	Sep 18, 2011	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8902912 13/257305	Nov 3, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	21201080048846.2	Nov 25, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8487296 12/626077	Nov 25, 2009	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9129803 13/920814	Mar 28, 2011	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8874230 13/121346	Aug 4, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	European Patent Office	201080043053.1	Aug 4, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	China	24270100	Aug 4, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	Germany	24270100	Aug 4, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	France	106124777	Aug 4, 2010	Issued	
New Jersey Institute of Technology	Empire Technology Development LLC	United Kingdom	24270100	Aug 4, 2010	Issued	



New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8521025	12/996/772	Dec-8, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	China	Z1201080035331.7	201080035331.7	Aug 13, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1358795	10-2012-7006582	Aug 13, 2010	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	88388897	13/172741	Jun 29, 2011	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9047223	14/322883	Jul 2, 2014	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	8700928	13/819267	Feb 26, 2013	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9237107	13/297101	Nov 15, 2011	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9138791	14/345211	Mar 16, 2014	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9246334	13/661017	Oct 25, 2012	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9118357	13/682867	Apr 30, 2012	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	China	2012800767347	201280076734.7	Oct 30, 2012	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9392475	14/349313	Apr 2, 2014	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9501093	13/981080	Jul 22, 2013	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9277497	13/881147	Apr 23, 2013	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9804623	14/342191	Feb 28, 2014	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9190734	13/814918	Feb 7, 2013	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	China	Z1201280038882.X	201280038882.X	Aug 8, 2012	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	Japan	6151251	2014-525101	Aug 8, 2012	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1597476	10-2014-7006582	Aug 9, 2011	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9516589	14/117078	Oct-8, 2013	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9233719	14/364656	Jun 11, 2014	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	15/038,974	May 24, 2016	Published	
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9742675	14/353366	Apr 21, 2014	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	10048976	14/917621	Mar 9, 2016	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	United States of America	9544233	14/436047	Apr 15, 2015	Issued
New Jersey Institute of Technology	Empire Technology Development LLC	China	201480077466.X	201480077466.X	Apr 28, 2014	Published
Northeastern University Technology Transfer Center	Empire Technology Development LLC	China	Z1200910080821.X	200910080821.X	Mar 23, 2009	Issued
Northeastern University Technology Transfer Center	Empire Technology Development LLC	United States of America	8588684	12/717062	Mar 18, 2010	Issued
Northeastern University Technology Transfer Center	Empire Technology Development LLC	United States of America	8736658	12/813724	Jun 11, 2010	Issued
Northeastern University Technology Transfer Center	Empire Technology Development LLC	United States of America	8761211	13/256635	Sep 15, 2011	Issued
Northeastern University Technology Transfer Center	Empire Technology Development LLC	Japan	5433086	2012-539164	May 25, 2010	Issued
Northeastern University Technology Transfer Center	Empire Technology Development LLC	United States of America	8521714	13/265229	Oct 19, 2011	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	4641550	2008-148285	Jun 5, 2008	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	4389034	2008-148286	Jun 5, 2008	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	4488825	2008-533010	Sep 7, 2006	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	9032336	12/460150	Dec 28, 2009	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	14/692318	Apr 21, 2015	Published	
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	2008-533009	Sep 7, 2006	Issued	
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	4545214	2008-544056	Nov 17, 2006	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	4255985	2008-538525	May 15, 2009	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	4342903	2008-538525	Oct 11, 2006	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	7885731	12/445461	Apr 10, 2009	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	4278709	2008-559040	Dec 25, 2006	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	8068902	12/520966	Jun 23, 2009	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	8428701	13/269974	Oct 10, 2011	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	4411387	2009-526287	Aug 7, 2007	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	8717292	12/666622	Dec 22, 2009	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	9632585	14/221481	Mar 21, 2014	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	9921663	15/495741	Apr 24, 2017	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	Japan	4580039	2010-104147	Apr 28, 2010	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	8173006	12/895568	Sep 30, 2010	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	9115011	13/466554	May 8, 2012	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	9244190	13/548226	Jul 13, 2012	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	9468785	14/110743	Oct 9, 2013	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	9546428	14/115085	Oct 31, 2013	Issued
Osaka Electro-Communication University	Empire Technology Development LLC	United States of America	15/789,297	Jun 22, 2016	Published	
Peking University	Empire Technology Development LLC	China	Z120088004208.3	20088004208.3	Aug 11, 2008	Issued
Peking University	Empire Technology Development LLC	United States of America	8367214	12/529217	Aug 31, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8614003	13/739688	Jan 11, 2013	Issued
Peking University	Empire Technology Development LLC	China	Z120088004236.5	20088004236.5	Aug 29, 2008	Issued
Peking University	Empire Technology Development LLC	United States of America	8021157	12/529229	Aug 31, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8097639	12/529231	Aug 31, 2009	Issued
Peking University	Empire Technology Development LLC	China	200880004198.3	200880004198.3	Aug 29, 2008	Published
Peking University	Empire Technology Development LLC	United States of America	8803880	12/545420	Aug 21, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8526713	12/995751	Dec 2, 2010	Issued
Peking University	Empire Technology Development LLC	Japan	5473096	2012-542329	Dec 7, 2009	Issued
Peking University	Empire Technology Development LLC	Republic of Korea	10-1566459	10-2012-7017661	Dec 7, 2009	Issued

Peking University	Empire Technology Development LLC	United States of America	8891857	13/955846	Jul 31, 2013	Issued
Peking University	Empire Technology Development LLC	United States of America	8842915	13/260109	Sep 23, 2011	Issued
Peking University	Empire Technology Development LLC	United States of America	9661551	13/147594	Aug 3, 2011	Issued
Peking University	Empire Technology Development LLC	China	21201080069013.4	201080069013.4	Jul 8, 2010	Issued
Peking University	Empire Technology Development LLC	Republic of Korea	10-1450034	2013-7003400	Jul 8, 2010	Issued
Peking University	Empire Technology Development LLC	Japan	5965394	2013-516954	Jul 8, 2010	Issued
Peking University	Empire Technology Development LLC	United States of America		15/602.045	May 22, 2017	Published
Peking University	Empire Technology Development LLC	United States of America	8515167	12/551093	Aug 31, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8433150	12/568584	Sep 28, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8687908	13/853862	Mar 29, 2009	Issued
Peking University	Empire Technology Development LLC	China	21200910139915.X	200910139915.X	Jul 10, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8564533	12/567664	Sep 25, 2009	Issued
Peking University	Empire Technology Development LLC	Japan	5507679	2012-513330	Sep 25, 2010	Issued
Peking University	Empire Technology Development LLC	Republic of Korea	10-1350526	10-2012-7000676	May 20, 2010	Issued
Peking University	Empire Technology Development LLC	United States of America	8797261	14/024015	May 20, 2010	Issued
Peking University	Empire Technology Development LLC	United States of America	9081414	14/311443	Sep 11, 2013	Issued
Peking University	Empire Technology Development LLC	Canada	2.696.910	2.696.910	Jun 23, 2014	Issued
Peking University	Empire Technology Development LLC	United States of America	8437538	12/569480	Mar 15, 2010	Issued
Peking University	Empire Technology Development LLC	China	21201080043589.3	201080043589.3	Sep 29, 2009	Issued
Peking University	Empire Technology Development LLC	Japan	5557918	2012-531217	May 20, 2010	Issued
Peking University	Empire Technology Development LLC	Republic of Korea	10-1589172	10-2012-7010833	May 20, 2010	Issued
Peking University	Empire Technology Development LLC	United States of America	8934708	13/837956	Mar 15, 2013	Issued
Peking University	Empire Technology Development LLC	European Patent Office	10819821.9	BR1120120069187	May 20, 2010	Published
Peking University	Empire Technology Development LLC	Brazil	8859762	13/294764	May 20, 2010	Published
Peking University	Empire Technology Development LLC	United States of America	201080069665.8	201080069665.8	Nov 26, 2010	Issued
Peking University	Empire Technology Development LLC	China	21201080069665.8		Mar 7, 2012	Issued
Peking University	Empire Technology Development LLC	United States of America	10-1436342	13/257791	Sep 20, 2011	Issued
Peking University	Empire Technology Development LLC	Republic of Korea	5746766	2013-522066	Aug 2, 2010	Issued
Peking University	Empire Technology Development LLC	Japan	9268734	14/602378	Aug 2, 2010	Issued
Peking University	Empire Technology Development LLC	United States of America	1085508.7	1085508.7	Jan 22, 2015	Issued
Peking University	Empire Technology Development LLC	European Patent Office	9278876	13/322335	Aug 2, 2010	Published
Peking University	Empire Technology Development LLC	United States of America	21201080069254.9	201080069254.9	Nov 23, 2011	Issued
Peking University	Empire Technology Development LLC	China	5750164	10858830.2	Oct 27, 2010	Issued
Peking University	Empire Technology Development LLC	Japan		10858830.2	Oct 27, 2010	Issued
Peking University	Empire Technology Development LLC	European Patent Office			Oct 27, 2010	Marked for Infring
Peking University	Empire Technology Development LLC	United States of America	9715336	13/520111	Apr 13, 2012	Issued
Peking University	Empire Technology Development LLC	China	201180068426.5	201180068426.5	Mar 16, 2011	Issued
Peking University	Empire Technology Development LLC	Republic of Korea	10-1452667	10-2013-7010900	Mar 16, 2011	Issued
Peking University	Empire Technology Development LLC	Japan	5852135	2013-549694	Mar 16, 2011	Issued
Peking University	Empire Technology Development LLC	European Patent Office		11860725.8	Mar 16, 2011	Marked for Infring
Peking University	Empire Technology Development LLC	United States of America	9546010	13/978700	Jul 8, 2013	Issued
Peking University	Empire Technology Development LLC	United States of America	9122631	13/290146	Nov 7, 2011	Issued
Peking University	Empire Technology Development LLC	United States of America	9235508	14/803074	Jul 19, 2015	Issued
Peking University	Empire Technology Development LLC	United States of America	15/197.458		Jun 29, 2016	Marked for Infring
Peking University	Empire Technology Development LLC	United States of America	9411875	13/980573	Jul 18, 2013	Issued
Peking University	Empire Technology Development LLC	United States of America	8178415	12/516493	Oct 20, 2009	Issued
Peking University	Empire Technology Development LLC	Japan	2006-318530		Oct 20, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8766853	12/516497	Nov 27, 2006	Published
Peking University	Empire Technology Development LLC	Japan	2006-318531		Oct 20, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8766802	12/516500	Nov 27, 2006	Published
Peking University	Empire Technology Development LLC	Japan	2006-318532		May 27, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8318047	12/516705	Nov 27, 2006	Published
Peking University	Empire Technology Development LLC	United States of America	8933784	12/516643	Oct 20, 2009	Issued
Peking University	Empire Technology Development LLC	Japan	2006-320337		Oct 19, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8704202	12/516715	Nov 28, 2006	Published
Peking University	Empire Technology Development LLC	Japan	2006-320338		Oct 20, 2009	Issued
Peking University	Empire Technology Development LLC	United States of America	8237622	12/521244	Nov 28, 2006	Published
Peking University	Empire Technology Development LLC	Japan	2006-354774		Jan 12, 2010	Issued
Peking University	Empire Technology Development LLC	United States of America	2007-155763		Dec 28, 2006	Published
Peking University	Empire Technology Development LLC	Japan	8188924	12/153661	Jun 12, 2007	Published
Peking University	Empire Technology Development LLC	United States of America	8440487	13/404667	May 22, 2008	Issued
Peking University	Empire Technology Development LLC	United States of America	2005-322371		Feb 24, 2012	Issued
Peking University	Empire Technology Development LLC	Japan	8154456	12/153662	Nov 7, 2005	Published
Peking University	Empire Technology Development LLC	United States of America	8477072	13/414784	May 22, 2008	Issued
Peking University	Empire Technology Development LLC	Japan	2005-322372		Mar 8, 2012	Issued
Peking University	Empire Technology Development LLC	United States of America	13/117.7986		Nov 7, 2005	Published
Peking University	Empire Technology Development LLC	United States of America	8971531	12/770466	Aug 10, 2016	Published
Peking University	Empire Technology Development LLC	United States of America			Apr 29, 2010	Issued

Shanghai Zhiyi Information Technology Ltd	Empire Technology Development LLC	United States of America	97086390	May 14, 2013	Issued
Shanghai Zhiyi Information Technology Ltd	Empire Technology Development LLC	United States of America	14/778,366	Sep 18, 2015	Published
Shanghai Zhiyi Information Technology Ltd	Empire Technology Development LLC	United States of America	9891184	Jan 29, 2018	Issued
Shanghai Zhiyi Information Technology Ltd	Empire Technology Development LLC	United States of America	9887046	Jun 26, 2015	Issued
Shanghai Zhiyi Information Technology Ltd	Empire Technology Development LLC	United States of America	15/507,552	Feb 28, 2017	Published
Shanghai Zhiyi Information Technology Ltd	Empire Technology Development LLC	United States of America	15/502,640	Feb 8, 2017	Marked for Impairing
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4402150	Aug 26, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8221650	Jan 17, 2009	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8470201	Jun 14, 2012	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8306371	Dec 18, 2009	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4372064	Aug 27, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	7956678	Feb 4, 2009	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4247307	Dec 14, 2007	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	7881492	Dec 18, 2009	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4131874	Sep 21, 2007	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	7787654	Feb 17, 2009	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4456663	Feb 25, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8335407	Dec 18, 2009	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4547447	Jul 17, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8307424	Jan 15, 2009	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1052147	Aug 29, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8308930	Sep 18, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	7968935	Aug 25, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1036551	Nov 21, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Germany	5254765	Nov 13, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	5254765	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	China	21200810180594.3	Apr 18, 2011	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8330602	Aug 4, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1045128	Sep 25, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8227179	Oct 10, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Germany	102008051159	Oct 3, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	5336140	Nov 4, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	China	21200810172612.3	Aug 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1071325	Sep 19, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8245393	Feb 13, 2015	Marked for Impairing
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	14/632,082	Nov 18, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1144401	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	5371814	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	4729095	Aug 26, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	China	21200810180799.1	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	5546424	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	9596762	Feb 2, 2012	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Germany	102008060645.6	Aug 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-0975641	Sep 15, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8343366	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Germany	102008060644.8	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4825863	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	China	21200810182767.5	Dec 4, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1033273	Mar 27, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	7887736	Sep 19, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	5666085	Oct 13, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	China	21200810161892.8	Jan 6, 2011	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8455084	Mar 27, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1033276	Sep 19, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	5766823	Nov 14, 2008	Published
Shibaura Institute of Technology	Empire Technology Development LLC	Germany	10200807346.9	Aug 25, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8734929	Aug 21, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1075669	Dec 2, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8070929	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Germany	102008060290.6	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Japan	4975005	Dec 5, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	China	21200810182781.5	Aug 19, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8137521	Oct 24, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	Republic of Korea	10-1077291	Aug 27, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	7815465	Aug 26, 2008	Issued
Shibaura Institute of Technology	Empire Technology Development LLC	United States of America	8021640		



SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1172567	10-2008-0122038	Dec 3, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8287695 13/210274	Aug 15, 2011	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		7959842 12/198835	Aug 26, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1149157	10-2008-0122028	Dec 3, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8673258 12/192024	Aug 14, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1083276	10-2008-0103507	Oct 22, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8357346 12/195347	Aug 20, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1095696	10-2008-0121346	Dec 2, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Japan	4769284	2008-310451	Dec 3, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	China	21200810182917.2	200810182917.2	Dec 5, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Germany		102008059801.1	Dec 1, 2008	Published
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1075622	10-2008-0101655	Oct 16, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1049702	10-2008-0084827	Aug 29, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1118007	10-2011-0028948	Aug 29, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		7915800 12/234491	Sep 19, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8232716 13/030065	Feb 17, 2011	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		7917966 12/191694	Aug 21, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Japan	5027100	2008-310618	Dec 3, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	China	21200810182906.3	200810182906.3	Dec 5, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8113811 12/200447	Aug 28, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8501064 13/346094	Jan 9, 2012	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		9044881 12/197994	Aug 25, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8216658 12/195330	Aug 20, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8157986 12/199358	Aug 27, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1065432	10-2008-0111733	Nov 11, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8366916 13/404517	Feb 24, 2012	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8153249 12/198790	Aug 26, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8043702 12/197968	Aug 25, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1088116	10-2008-0112658	Nov 13, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1061966	10-2008-0084082	Aug 27, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-0986781	10-2008-0084556	Aug 28, 2008	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8432049 12/836733	Jul 15, 2010	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	United States of America		8487835 12/767924	Apr 27, 2010	Issued
SNU R8DB FOUNDATION	Empire Technology Development LLC	Republic of Korea	10-1495969	10-2012-7019636	Dec 15, 2010	Issued
Sukho Jung	Empire Technology Development LLC	Japan	5525653	2013-507863	Dec 15, 2010	Issued
Sukho Jung	Empire Technology Development LLC	China	21201080066367.3	201080066367.3	Dec 15, 2010	Issued
Sukho Jung	Empire Technology Development LLC	Brazil		BR112012027170	Dec 15, 2010	Issued
Sukho Jung	Empire Technology Development LLC	United States of America		7358640 11/665337	Apr 13, 2010	Pending
Sukho Jung	Empire Technology Development LLC	Japan	4504317	2006-009005	Jan 17, 2007	Issued
Sukho Jung	Empire Technology Development LLC	European Patent Office	1974487	07707273.4	Jan 17, 2007	Issued
Sukho Jung	Empire Technology Development LLC	United States of America		8054866 12/161128	Jul 16, 2008	Issued
The Doshisha	Empire Technology Development LLC	Republic of Korea	10-1023004	10-2008-7017487	Jan 17, 2007	Issued
The Doshisha	Empire Technology Development LLC	China	21200780003227.X	200780003227.X	Jan 17, 2007	Issued
The Doshisha	Empire Technology Development LLC	Germany	1974487	602007045289.9	Jan 17, 2007	Issued
The Doshisha	Empire Technology Development LLC	France	1974487	07707273.4	Jan 17, 2007	Issued
The Doshisha	Empire Technology Development LLC	United Kingdom		07707273.4	Jan 17, 2007	Issued
The Doshisha	Empire Technology Development LLC	United States of America		8103170 12/1986971	Aug 22, 2008	Issued
The Doshisha	Empire Technology Development LLC	Japan	5057327	2007-239028	Sep 14, 2007	Issued
The Doshisha	Empire Technology Development LLC	United States of America		7799715 12/209851	Sep 12, 2008	Issued
The Doshisha	Empire Technology Development LLC	United States of America		7893000 12/857283	Aug 16, 2010	Issued
The Doshisha	Empire Technology Development LLC	United States of America		8862063 13/710346	Dec 10, 2012	Issued
The Doshisha	Empire Technology Development LLC	United States of America		8670720 13/710330	Dec 10, 2012	Issued
The Doshisha	Empire Technology Development LLC	United States of America		9014440 12/647116	Dec 24, 2009	Issued
Thiagarajar College of Engineering	Empire Technology Development LLC	India		2759/CHE/2009	Nov 11, 2009	Published
Thiagarajar College of Engineering	Empire Technology Development LLC	United States of America		8699785 12/938195	Nov 2, 2010	Issued
Thiagarajar College of Engineering	Empire Technology Development LLC	United States of America		8948462 14/228806	Mar 28, 2014	Issued
Thiagarajar College of Engineering	Empire Technology Development LLC	Japan	5142366	2007-283885	Oct 31, 2007	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		7976416 12/196100	Aug 21, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	5240987	2007-332562	Dec 25, 2007	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		9140445 12/195943	Aug 21, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	5072097	2008-010239	Jan 21, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		7679940 12/182882	Jul 30, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	5376625	2008-201434	Aug 5, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8972370 12/196086	Aug 21, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8606842 12/196002	Aug 21, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan		2008-153259	Jun 11, 2008	Published

Tokyo Denki University	Empire Technology Development LLC	Japan	5322256	8394455	12/17/5128	Nov 7, 2007	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		7839241	12/19/1900	Aug 14, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		7639348	10/586148	Apr 5, 2007	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8279439	12/439441	Feb 27, 2009	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	4936477	2008-531980		Jan 29, 2007	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	5078064	2007-017747		Jan 29, 2007	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8286509	12/524254	Jul 23, 2009	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	5190860	2007-030703		Jan 22, 2009	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8421999	12/523917	Jul 21, 2009	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8797510	13/7860674	Apr 11, 2013	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	4308871	2007-539917		Oct 6, 2006	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8039879	12/089855	Apr 10, 2008	Issued
Tokyo Denki University	Empire Technology Development LLC	China	21200680038062.5	200680038062.5		Oct 6, 2006	Issued
Tokyo Denki University	Empire Technology Development LLC	European Patent Office	1946701	06811405.7		Oct 6, 2006	Issued
Tokyo Denki University	Empire Technology Development LLC	Republic of Korea	10-0971936	10-2008-7011215		Oct 6, 2006	Issued
Tokyo Denki University	Empire Technology Development LLC	Germany	1946701	602006038022.4		Oct 6, 2006	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	5557368	2009-106852		Apr 24, 2009	Issued
Tokyo Denki University	Empire Technology Development LLC	United States of America		8330948	12/712760	Feb 25, 2010	Issued
Tokyo Denki University	Empire Technology Development LLC	Japan	4712879	2009-036476		Feb 19, 2009	Issued
Tokyo Metropolitan University	Empire Technology Development LLC	United States of America		9322596	12/708410	Feb 18, 2010	Issued
Tokyo Metropolitan University	Empire Technology Development LLC	Japan	5103540	2011-062115		Feb 19, 2009	Issued
Tokyo Metropolitan University	Empire Technology Development LLC	Japan	4597246	2009-137085		Jun 8, 2009	Issued
Tokyo Metropolitan University	Empire Technology Development LLC	United States of America		8269165	12/999434	Dec 16, 2010	Issued
Tokyo Metropolitan University	Empire Technology Development LLC	United States of America		8507851	13/590033	Aug 20, 2012	Issued
Tokyo Metropolitan University	Empire Technology Development LLC	Japan	4699335	2009-05283		Mar 5, 2009	Issued
Tomono Akira	Empire Technology Development LLC	United States of America		7934703	11/8886020	Sep 10, 2007	Issued
Tongji University	Empire Technology Development LLC	United States of America		8735537	13/131343	Jun 6, 2011	Issued
Tongji University	Empire Technology Development LLC	Japan	5653186	2013-512717		Jun 4, 2010	Issued
Tongji University	Empire Technology Development LLC	United States of America		9290610	14/255715	Apr 17, 2014	Issued
Tongji University	Empire Technology Development LLC	United States of America		8907015	13/133936	Jun 9, 2011	Issued
Tongji University	Empire Technology Development LLC	China	21201080067236.7	201080067236.7		Jun 4, 2010	Issued
Tongji University	Empire Technology Development LLC	European Patent Office	2576645	10852371.3		Jun 4, 2010	Issued
Tongji University	Empire Technology Development LLC	Japan	5703372	2013-512718		Jun 4, 2010	Issued
Tongji University	Empire Technology Development LLC	United Kingdom	2576645	10852371.3		Jun 4, 2010	Issued
Tongji University	Empire Technology Development LLC	Germany	2576645	602010023202.2		Jun 4, 2010	Issued
Tongji University	Empire Technology Development LLC	France	2576645	10852371.3		Jun 4, 2010	Issued
Tongji University	Empire Technology Development LLC	China	2120101026288.6	20101026288.6		Jul 9, 2010	Issued
Tongji University	Empire Technology Development LLC	China	2120121024796.3	20121024796.3		Jun 9, 2010	Issued
Tongji University	Empire Technology Development LLC	United States of America		8753380	13/376440	Jun 21, 2011	Marked for Infringing
Tongji University	Empire Technology Development LLC	United States of America		9358055	14/288266	Dec 6, 2011	Issued
Tongji University	Empire Technology Development LLC	United States of America		8709048	13/376502	May 27, 2014	Issued
Tongji University	Empire Technology Development LLC	United States of America		8992577	14/208877	Dec 6, 2011	Issued
Tongji University	Empire Technology Development LLC	United States of America		9238589	12/950262	Mar 13, 2014	Issued
Tongji University	Empire Technology Development LLC	United States of America		9492662	14/127640	Dec 19, 2013	Issued
Tongji University	Empire Technology Development LLC	United States of America		8394643	13/382888	Jan 6, 2012	Issued
Tongji University	Empire Technology Development LLC	China	21201180064572.0	201180064572.0		Mar 3, 2011	Issued
Tongji University	Empire Technology Development LLC	China	21201180062705.0	201180062705.0		Feb 25, 2011	Issued
Tongji University	Empire Technology Development LLC	United States of America		8361323	13/481656	May 25, 2012	Issued
Tongji University	Empire Technology Development LLC	China	21201180070172.0	201180070172.0		Apr 25, 2011	Issued
Tongji University	Empire Technology Development LLC	United States of America		8735166	13/505059	Apr 30, 2011	Issued
Tongji University	Empire Technology Development LLC	China	21201180069824.9	201180069824.9		Apr 7, 2011	Issued
Tongji University	Empire Technology Development LLC	United States of America		9063109	14/251396	Apr 11, 2014	Issued
Tongji University	Empire Technology Development LLC	United States of America		8445868	13/503349	Apr 20, 2012	Issued
Tongji University	Empire Technology Development LLC	China	21201180064579.2	201180064579.2		Mar 14, 2011	Issued
Tongji University	Empire Technology Development LLC	United States of America		9217725	13/83587	Feb 22, 2013	Issued
Tongji University	Empire Technology Development LLC	United States of America		8845905	13/821391	Mar 7, 2013	Issued
Tongji University	Empire Technology Development LLC	United States of America		9952173	15/021917	Mar 14, 2016	Issued
Tongji University	Empire Technology Development LLC	United States of America		9901347	12/791816	Jun 1, 2010	Issued
Treus Medical Inc.	Empire Technology Development LLC	United States of America		9486249	13/439251	Apr 4, 2012	Issued
Treus Medical Inc.	Empire Technology Development LLC	United States of America		9282968	12/951803	Nov 22, 2010	Issued
Treus Medical Inc.	Empire Technology Development LLC	China	21201080070310.0	201080070310.0		Nov 23, 2010	Issued
Treus Medical Inc.	Empire Technology Development LLC	European Patent Office		10860302.5		Nov 23, 2010	Published
Treus Medical Inc.	Empire Technology Development LLC	European Patent Office		08856414.1		Nov 26, 2008	Marked for Infringing
Treus Medical, Inc.	Empire Technology Development LLC	United States of America		14/810431		Jul 27, 2013	Published
University of British Columbia	Empire Technology Development LLC	United States of America		9962521	13/997036	Jun 21, 2013	Issued

University of British Columbia	Empire Technology Development LLC	United States of America	8519189	13/5064841	Apr 27, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	8637008	13/458899	Apr 27, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9095666	14/098184	Dec 5, 2013	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	10111902	14/629408	Feb 23, 2015	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	15/887,561		Feb 2, 2018	Published
University of British Columbia	Empire Technology Development LLC	United States of America	9370628	13/324587	Dec 13, 2011	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9289584	13/509387	May 11, 2012	Issued
University of British Columbia	Empire Technology Development LLC	Republic of Korea	9886352	13/024761	Mar 18, 2013	Issued
University of British Columbia	Empire Technology Development LLC	China	201280072728.4	10-2014-7028428	Apr 27, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	15/874,433		Apr 27, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	12/628,721		Jan 18, 2010	Published
University of British Columbia	Empire Technology Development LLC	United States of America	8546092	12/632437	Dec 1, 2009	Published
University of British Columbia	Empire Technology Development LLC	United States of America	8541645	12/633437	Dec 7, 2009	Issued
University of British Columbia	Empire Technology Development LLC	China	201080066676.0	201080066676.0	Dec 8, 2009	Issued
University of British Columbia	Empire Technology Development LLC	European Patent Office	10649329.7	602010049108.0	Jun 8, 2010	Issued
University of British Columbia	Empire Technology Development LLC	Germany	2555799		Jun 8, 2010	Issued
University of British Columbia	Empire Technology Development LLC	United Kingdom	2555799		Jun 8, 2010	Issued
University of British Columbia	Empire Technology Development LLC	France	10649329.7		Jun 8, 2010	Issued
University of British Columbia	Empire Technology Development LLC	China	21201080052106.6		Jun 8, 2010	Issued
University of British Columbia	Empire Technology Development LLC	Brazil	BR1120120158104		Nov 10, 2010	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	8391602	12/756612	Nov 10, 2010	Marked for Infringing
University of British Columbia	Empire Technology Development LLC	United States of America	8644616	13/755728	Apr 8, 2010	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	8730619	14/142209	Jan 31, 2013	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9024011	13/377493	Dec 27, 2013	Issued
University of British Columbia	Empire Technology Development LLC	China	21201080067120.3		Dec 9, 2011	Issued
University of British Columbia	Empire Technology Development LLC	European Patent Office	10852465.3		Dec 2, 2010	Issued
University of British Columbia	Empire Technology Development LLC	Germany	2576030		Dec 2, 2010	Issued
University of British Columbia	Empire Technology Development LLC	France	2576030	602010040488.9	Dec 2, 2010	Issued
University of British Columbia	Empire Technology Development LLC	United Kingdom	10852465.3		Dec 2, 2010	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9354170	13/376102	Dec 2, 2011	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9002782	13/496705	Mar 16, 2012	Issued
University of British Columbia	Empire Technology Development LLC	Republic of Korea	10-2013-700233		Nov 30, 2010	Issued
University of British Columbia	Empire Technology Development LLC	Japan	5629821	2013-513766	Nov 30, 2010	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	8640068	13/497477	Mar 21, 2012	Issued
University of British Columbia	Empire Technology Development LLC	Japan	5726330	2013-547915	Mar 3, 2011	Issued
University of British Columbia	Empire Technology Development LLC	Republic of Korea	10-1534121	10-2013-7019972	Mar 3, 2011	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9390213	14/150110	Jan 8, 2014	Issued
University of British Columbia	Empire Technology Development LLC	India	0019/KOL/2011		Jan 8, 2014	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9068939	13/503815	Jan 7, 2011	Published
University of British Columbia	Empire Technology Development LLC	United States of America	8638434	13/513068	Apr 24, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	8982344	14/134899	May 31, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9897543	14/364574	Dec 19, 2013	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9133450	13/091605	Jun 11, 2014	Issued
University of British Columbia	Empire Technology Development LLC	China	2120128006750.1		Jun 4, 2013	Issued
University of British Columbia	Empire Technology Development LLC	India	0095/KOL/2012		Apr 14, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	15/141,629		Jan 31, 2012	Published
University of British Columbia	Empire Technology Development LLC	United States of America	9359265	13/825661	Apr 28, 2016	Allowed
University of British Columbia	Empire Technology Development LLC	China	201280069826.2		Mar 22, 2013	Issued
University of British Columbia	Empire Technology Development LLC	Australia	2012369910		Aug 7, 2012	Issued
University of British Columbia	Empire Technology Development LLC	India	0154/KOL/2012		Aug 7, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9459210	13/884721	Aug 7, 2012	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9493763	14/413635	Feb 15, 2012	Published
University of British Columbia	Empire Technology Development LLC	India	0754/KOL/2012		May 10, 2013	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9715514	13/879804	Jan 8, 2015	Issued
University of British Columbia	Empire Technology Development LLC	China	21201380076562.8		Jun 9, 2012	Published
University of British Columbia	Empire Technology Development LLC	United States of America	9322012	14/455780	Dec 3, 2013	Issued
University of British Columbia	Empire Technology Development LLC	China	21201410401014.4		Aug 22, 2015	Published
University of British Columbia	Empire Technology Development LLC	China	9790529	14/455699	May 20, 2013	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	201410392448.2		Aug 8, 2014	Issued
University of British Columbia	Empire Technology Development LLC	China	9577260	14/309554	Aug 11, 2014	Marked for Infringing
University of British Columbia	Empire Technology Development LLC	United States of America	14/455,387		Jun 19, 2014	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9748368	14/902480	Aug 8, 2014	Published
University of British Columbia	Empire Technology Development LLC	China	201380078344.8		Dec 31, 2015	Issued
University of British Columbia	Empire Technology Development LLC	United States of America	9748616	14/464420	Aug 23, 2013	Issued
University of British Columbia	Empire Technology Development LLC	China	201380078344.8		Aug 20, 2014	Issued

University of Calicut	Empire Technology Development LLC	China	Z1201410410702.7	201410410702.7	Aug 20, 2014 Issued
University of Calicut	Empire Technology Development LLC	India		0962/KOL/2013	Aug 20, 2013 Published
University of Calicut	Empire Technology Development LLC	United States of America		15/658.027	Jul 24, 2017 Published
University of Calicut	Empire Technology Development LLC	United States of America		9726596 14/39790	Nov 12, 2014 Published
University of Calicut	Empire Technology Development LLC	United States of America		9759668 14/910809	Feb 8, 2016 Issued
University of Calicut	Empire Technology Development LLC	United States of America		9975773 14/547311	Nov 19, 2014 Issued
University of Calicut	Empire Technology Development LLC	India		0151/KOL/2014	Feb 5, 2014 Published
University of Calicut	Empire Technology Development LLC	India		9222216 14/681849	Apr 8, 2015 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		0445/KOL/2014	Apr 9, 2014 Published
University of Hyderabad	Empire Technology Development LLC	Japan		2014-541491	Nov 24, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	Republic of Korea	6006328	10-2014-7017353	Nov 24, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America	10-1686498	9483888 14/394679	Oct 15, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8866087 13/977893	Jul 1, 2013 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		9435901 14/319740	Jun 30, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	Republic of Korea	10-1766952	10-2014-7028156	May 2, 2012 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8507605 13/093547	Feb 23, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		9051486 13/262886	Oct 4, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8704005 13/979589	Jul 12, 2013 Issued
University of Hyderabad	Empire Technology Development LLC	China	Z1201180064118.5	201180064118.5	Mar 17, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	European Patent Office	2686367	11861093.0	Mar 17, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	Germany	2686367	602011024189.3	Mar 17, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	France	2686367	11861093.0	Mar 17, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	United Kingdom		11861093.0	Mar 17, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		9250280 14/357770	May 13, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	Germany	112013007199	112013007199.1	Jun 26, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		9813931 14/446155	Jul 29, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		9723490 14/353580	Jul 18, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		1003722 15/023894	Mar 22, 2016 Issued
University of Hyderabad	Empire Technology Development LLC	China		201380079813.8	Sep 24, 2013 Published
University of Hyderabad	Empire Technology Development LLC	United States of America		8004793 12/200737	Aug 28, 2008 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8223457 13/185270	Jul 18, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		7658650 12/198842	Aug 26, 2008 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8368990 12/545678	Aug 21, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8681411 13/758115	Feb 4, 2013 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8368047 12/606880	Oct 27, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	Japan	5903383	2012-555137	Oct 22, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8809834 12/498228	Jul 6, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	Japan	5374643	2012-514896	Jul 5, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		9397249 14/322465	Jul 2, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	European Patent Office		10797264.8	Jul 5, 2010 Published
University of Hyderabad	Empire Technology Development LLC	United States of America		8748862 12/498455	Jun 29, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8367925 12/493800	May 26, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8373153 12/472168	May 26, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	Republic of Korea	10-1355983	10-2011-7030713	Aug 20, 2014 Issued
University of Hyderabad	Empire Technology Development LLC	Germany	5984885	2014-167511	May 26, 2010 Published
University of Hyderabad	Empire Technology Development LLC	United States of America		8227793 12/498204	Jul 6, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8802461 13/485241	May 31, 2012 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8058641 12/620602	Nov 18, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8524517 13/279945	Oct 24, 2011 Issued
University of Hyderabad	Empire Technology Development LLC	Republic of Korea	10-1259328	10-2012-7009054	Nov 17, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8063396 12/432967	Apr 30, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	Japan	5744845	2012-508397	Apr 27, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	China	Z1201080028653.6	201080028653.6	Apr 27, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	Germany		112010001867.7	Apr 27, 2010 Marked for Impairing
University of Hyderabad	Empire Technology Development LLC	United States of America		8395141 12/498257	Jul 6, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8247881 12/430447	Apr 27, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	Republic of Korea	10-1322364	10-2011-7028107	Oct 27, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8264224 12/606852	Oct 22, 2010 Marked for Impairing
University of Hyderabad	Empire Technology Development LLC	European Patent Office		10827017.4	Jun 11, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		7889107 12/482997	Jun 11, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	Republic of Korea	10-1282236	10-2012-70002430.8	Jun 11, 2010 Marked for Impairing
University of Hyderabad	Empire Technology Development LLC	Germany		112010002430.8	Nov 24, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8558237 12/625314	Nov 24, 2009 Issued
University of Hyderabad	Empire Technology Development LLC	Republic of Korea	10-1383991	10-2012-7009053	Nov 19, 2010 Issued
University of Hyderabad	Empire Technology Development LLC	United States of America		8704248 14/023926	Sep 11, 2013 Issued

University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	United States of America	8828764	14/12/25368	Mar 25, 2014	Issued
University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	United States of America	8671369	12/63375	Dec 8, 2009	Issued
University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	Japan	5537669	2012-543022	Dec 6, 2010	Issued
University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	United States of America	9147019	14/173422	Feb 5, 2014	Issued
University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	United States of America	8270782	12/659388	Jan 28, 2010	Issued
University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	United States of America	8708901	12/6500931	Dec 30, 2009	Issued
University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	United States of America	8289022	12/696652	Jan 29, 2010	Issued
University of Seoul Industry Cooperation Foundation	Empire Technology Development LLC	European Patent Office	117372664		Jan 25, 2011	Published
University of Southern California	Empire Technology Development LLC	United States of America	9444496	13/835486	Mar 15, 2013	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8285900	12/372536	Feb 17, 2009	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8694704	13/615264	Sep 13, 2012	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	9571399	14/247098	Apr 7, 2014	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8307116	12/487781	Jun 19, 2009	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8565331	12/999029	Dec 14, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	China	2120108006867.5	20108006867.5	Aug 20, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Republic of Korea	10-1432065	10-2013-7006792	Aug 20, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Japan	5584363	2013-524827	Aug 20, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	European Patent Office	2606619	10856243.0	Aug 20, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Germany	2606619	602010034017.1	Aug 20, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United Kingdom	2606619	10856243.0	Aug 20, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	France	2606619	10856243.0	Aug 20, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8514913	12/999266	Dec 15, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Republic of Korea	10-1414036	10-2013-7002956	Jul 16, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Japan	5557957	2013-519641	Jul 16, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8958499	12/997831	Dec 13, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Republic of Korea	10-1438536	10-2013-7003580	Jul 16, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Japan	5487363	2013-519640	Jul 16, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8711961	12/836843	Jul 15, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8798120	12/727069	Mar 18, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8407274	12/785040	May 21, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8407274	12/785040	Jun 30, 2010	Marked for Inpatifing
University of Texas at Austin	Empire Technology Development LLC	United States of America	12/827.906		Jul 30, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8415968	12/847571	Mar 12, 2013	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	9369132	13/795816	Oct 14, 2011	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	9293391	13/274001	Jan 26, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	9853135	15/006818	Dec 6, 2017	Published
University of Texas at Austin	Empire Technology Development LLC	United States of America	15/833.579		Aug 13, 2009	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8503350	12/540724	Aug 13, 2009	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8508471	12/540843	Feb 17, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	United States of America	8611414	12/707400	Dec 13, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Republic of Korea	10-1354095	10-2012-7024239	Dec 13, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	China	21201080064038.5	201080064038.5	Dec 13, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Japan	6438904	2016-051810	Dec 13, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Japan		2017-253438	Dec 13, 2010	Pendf ing
University of Texas at Austin	Empire Technology Development LLC	United States of America	8545866	12/507938	Jul 23, 2009	Issued
University of Texas at Austin	Empire Technology Development LLC	Republic of Korea	10-1354013	10-2012-7003974	Jul 23, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Japan	5799012	2012-520551	Jul 23, 2010	Issued
University of Texas at Austin	Empire Technology Development LLC	Australia	2010275132		Jul 23, 2010	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	European Patent Office	10802485.2		Jul 23, 2010	Published
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	United States of America	9008464	12/485692	Jun 16, 2009	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	Republic of Korea	10-1451237	10-2012-7000795	Jun 15, 2010	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	Japan	5709853	2012-514893	Nov 14, 2013	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	Japan	5755707	2013-235748	Nov 14, 2013	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	Republic of Korea	10-1524119	10-2013-7032920	Mar 19, 2010	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	United States of America	9082278	12/727961	Dec 17, 2010	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	China	5596801	2012-556959	Dec 17, 2010	Issued
University-Industry Cooperation Group of Kyung Hee University	Empire Technology Development LLC	China	21201080050940.1	201080050940.1	Jul 11, 2010	Issued
University-Industry Foundation, Yonsei University	Empire Technology Development LLC	United States of America	8916134	12/171812	Jul 11, 2008	Issued
University-Industry Foundation, Yonsei University	Empire Technology Development LLC	Republic of Korea	10-1084435	10-2008-0069850	Oct 30, 2009	Issued
Virginia Tech Intellectual Properties Inc.	Empire Technology Development LLC	United States of America	8295341	12/609011	Dec 9, 2009	Issued
Virginia Tech Intellectual Properties Inc.	Empire Technology Development LLC	United States of America	8290086	12/634251	Feb 1, 2011	Issued
VTI University	Empire Technology Development LLC	United States of America	8797953	13/018477	May 9, 2012	Issued
Washington State University	Empire Technology Development LLC	China	21201280022052.8	201280022052.8	Sep 25, 2015	Marked for Inpatifing
Washington State University	Empire Technology Development LLC	United States of America	21201480026163.5	201480026163.5	Sep 25, 2015	Published
Washington State University	Empire Technology Development LLC	United States of America	14/7772482	14/7772482	Oct 9, 2015	Published
Washington State University	Empire Technology Development LLC	China	21201510649273.3	201510649273.3	Oct 7, 2015	Published
Washington State University	Empire Technology Development LLC	United States of America	14/877.635			

Washington State University	Empire Technology Development LLC	United States of America	2719003	9865870 14/112359	Nov 26, 2013 Issued
Washington State University	Empire Technology Development LLC	European Patent Office	2719003	12796057.3	Jun 2, 2012 Issued
Washington State University	Empire Technology Development LLC	Republic of Korea	10-1708291	10-2014-7000256	Jun 2, 2012 Issued
Washington State University	Empire Technology Development LLC	Germany	2719003	602012034/789.9	Jun 2, 2012 Issued
Washington State University	Empire Technology Development LLC	France	2719003	12796057.3	Jun 2, 2012 Issued
Washington State University	Empire Technology Development LLC	United Kingdom	2719003	12796057.3	Jun 2, 2012 Issued
Washington State University	Empire Technology Development LLC	United States of America	2534720	14/762.691	Jul 22, 2015 Allowed
Washington State University	Empire Technology Development LLC	United States of America	2534720	9493885 13/756000	Aug 20, 2012 Issued
Washington State University	Empire Technology Development LLC	European Patent Office	2534720	11742898.7	Feb 11, 2011 Issued
Washington State University	Empire Technology Development LLC	Germany	2534720	602010041327.9	Feb 11, 2011 Issued
Washington State University	Empire Technology Development LLC	France	2534720	11742898.7	Feb 11, 2011 Issued
Washington State University	Empire Technology Development LLC	United Kingdom	2534720	20118000838.2	Feb 11, 2011 Issued
Washington State University	Empire Technology Development LLC	China	2534720	20118000838.2	Feb 11, 2011 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	15/287.667	Oct 6, 2016 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	8722254 13/636027	Sep 19, 2012 Issued
Washington State University	Empire Technology Development LLC	Japan	5808480	2014-506627	May 9, 2012 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	9614250 16/223017	Mar 26, 2014 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	9714341 14/778436	Sep 18, 2015 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	9773347 14/689842	Dec 14, 2015 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	9724213 14/443867	May 19, 2015 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	14/761.268	Jul 15, 2015 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	9290324 13/837904	Mar 15, 2013 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	9598445 14/982431	Dec 29, 2015 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	8524461 13/213316	Nov 18, 2011 Issued
Washington State University	Empire Technology Development LLC	China	5808480	201080068487.7	Nov 9, 2010 Issued
Washington State University	Empire Technology Development LLC	India	5808480	0863/KOL/2010	Aug 5, 2010 Published
Washington State University	Empire Technology Development LLC	European Patent Office	5808480	10855559.0	Nov 9, 2010 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	9359584 13/126109	Apr 26, 2011 Issued
Washington State University	Empire Technology Development LLC	India	5808480	0599/KOL/2010	Jun 1, 2010 Published
Washington State University	Empire Technology Development LLC	United States of America	5808480	13/881.148	Jul 9, 2011 Published
Washington State University	Empire Technology Development LLC	United States of America	5808480	8398856 13/380767	Dec 23, 2011 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	2014-51457	Jul 28, 2011 Issued
Washington State University	Empire Technology Development LLC	India	5808480	0789/KOL/2011	Jun 10, 2011 Published
Washington State University	Empire Technology Development LLC	United States of America	5808480	8749120 13/580945	Aug 23, 2012 Issued
Washington State University	Empire Technology Development LLC	Republic of Korea	5808480	10-2014-7008441	Oct 28, 2012 Issued
Washington State University	Empire Technology Development LLC	Japan	5808480	2014-534908	Oct 28, 2011 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	9034468 13/684403	May 9, 2013 Issued
Washington State University	Empire Technology Development LLC	China	5808480	201180074122.X	Nov 29, 2011 Issued
Washington State University	Empire Technology Development LLC	Japan	5808480	2014-541502	Dec 22, 2014 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	14/410.529	Nov 29, 2011 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	9774004 15/030037	Apr 15, 2016 Issued
Washington State University	Empire Technology Development LLC	United States of America	5808480	15/117.395	Aug 8, 2016 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	15/555.893	Sep 5, 2017 Allowed
Washington State University	Empire Technology Development LLC	China	5808480	201580077465.X	Mar 11, 2015 Published
Washington State University	Empire Technology Development LLC	United States of America	5808480	15/298.018	Oct 31, 2016 Published
Washington State University	Empire Technology Development LLC	United States of America	5808480	14/761.544	Jul 16, 2015 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	15/092.531	Apr 27, 2016 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	15/111.231	Jul 13, 2016 Marked for Infringing
Washington State University	Empire Technology Development LLC	United States of America	5808480	PCT/CN2016/085713	Jun 14, 2016 Marked for Infringing
Washington State University	Empire Technology Development LLC	PCT	5808480	PCT/CN2016/082176	May 16, 2016 Marked for Infringing